



**U. S.
NAVY**

Medicine



December 1970

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The issuance of this publication approved in accordance with NAVEXOS P-35.

NAVMED P-5088

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Credits: All pictures are Official U.S. Navy Photographs unless otherwise indicated.

Front Cover Photograph—Two very appealing, former patients of the Naval Hospital in USS Sanctuary, through the courtesy of CAPT Frederick E. Jackson, MC, USN, (now Chief, Department of Neurological Surgery, Naval Hospital, Camp Pendleton, Calif.). CAPT Jackson removed a subdural hematoma from the youngster on the right.

Back Cover Photograph reveals LCDR L. P. Metcalf, MSC, USN, encouraging a shy youngster in Vietnam to join him in the picture.

Page 2 photo was taken off the coast of Vietnam aboard the amphibious assault ship USS Tripoli (LPH-10) in Dec. 1969. A treasured Christmas gift from the crew captured this 4-year-old boy's attention while he was recovering from plastic reconstruction of his left ear.—PAO, USS Tripoli.



from the Chief

As the year 1970 draws rapidly to a close, I extend to all of you my personal wishes for a blessed Christmas time. Many of you have returned home to enjoy this special time of year reunited with your families once more. Those who are temporarily absent, anticipate the warmth of home and hearth which future years will bring at Christmas. We are particularly mindful of those who will not return, for their absence is never more keenly felt than now. Their supreme sacrifice strongly emphasizes the very special significance of Christmas and how it began.

Christmas is a time for children and rightly so. It is the honored birthday of A Very Special Child. It is the children we seek to delight. It is their trust and eagerness "to believe" that we admire, and wish to perpetuate. This is true, whether it be in the United States, Viet Nam, or in any other land.

There is no greater cause for sacrifice than peace. Surely there is no greater possible gift for children than that of peace. At this Christmas Season there is uppermost in our hearts the hope of peace—an honorable peace in our time.

G. M. Davis

G. M. DAVIS
VADM, MC, USN
Surgeon General

CHRISTMAS GREETINGS

With the world hoping for peace, it is difficult for most of us to participate completely in the spirit of Christmas. The tensions and pressures of our lives make it difficult to pause and reflect on the true significance of this joyous Holy Season. However, without the steadfast belief that eventual peace and goodwill for all men can and will some day become a reality, without the sincere desire to share that belief during the Yule Season, our daily lives would lack meaning.

I extend to all personnel of the Naval Dental Corps, officers, enlisted, civilians, their families and loved ones, sincere wishes for a happy holiday. May the New Year bring a harvest that will include the joys of peace on this earth, good health, and the contentment that comes with a good life.

MERRY CHRISTMAS AND A HAPPY NEW YEAR.



E. C. RAFFETTO
Rear Admiral, DC, USN
Assistant Chief of the Bureau of
Medicine and Surgery (Dentistry)
and Chief, Dental Division



CHRISTMAS IS A TIME FOR CHILDREN AND RIGHTLY SO

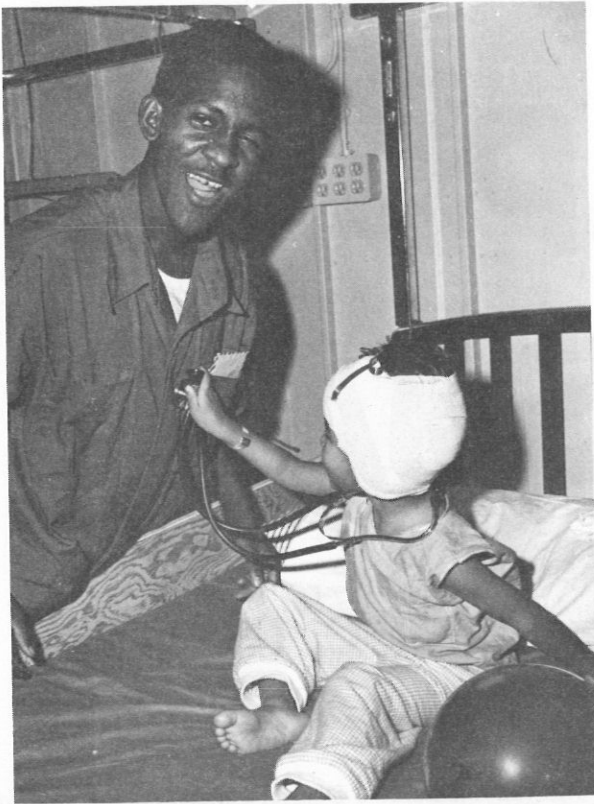


Rudolph the Red-Nosed, Vietnamese style, was born of a goose-neck lamp, ingenuity, and much spirit at the former NSA Hospital, DaNang in Christmas of 1969. (Courtesy of CAPT N. P. Kitrinis, MC, USN, Code 317, BUMED.)



Little "Buckwheat" added her flamboyant touch to Christmas on the Urology Ward at NSA Hospital, DaNang, in 1969. (Courtesy of CAPT N. P. Kitrinis, MC, USN.)

Off the coast of Vietnam, in the Intensive Care Ward aboard the amphibious assault ship USS Tripoli (LPH-10) in December 1969:



A four-year-old Vietnamese boy recovering from ear surgery 'examined' SA Michael J. Navey of Port Arthur, Texas (left);



Two-year-old Nguyen Thi Kim Lan was recovering from a leg wound and malnutrition but took time out to enjoy Christmas presents given her by crewmen;



Santa Claus visited eight-year-old Tran Thi Hoa in the sick bay as she recovered from surgery on her cleft upper lip. ❧

THE CAP CORPSMAN

By

LCDR Lawrence P. Metcalf, MSC, USN*

Medical Coordinator, Combined Action Force, RVN

The Combined Action Force (CAF) represents a unique concept in this Nation's military history; it has never been employed as a formal organization before. Adaptable to Type I and Type II guerrilla warfare, it is not designed for use in "conventional war." Historically it began in 1965 in DaNang, Republic of Viet Nam (RVN), under the auspices of GEN L. W. Walt, USMC, who was Commander Third Marine Amphibious Forces at that time. The first CAP was established in Thua Thien Province in order to curtail VC subversive activities.

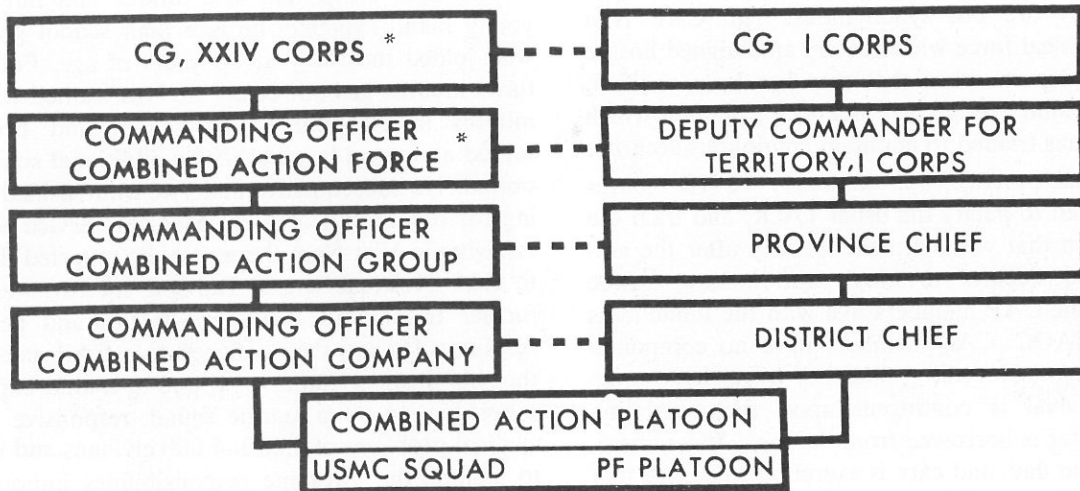
The CAF has as its prime objective the identification and destruction of the VC interstructure with interdiction of VC and NVA movements. The organizational structure of CAF is graphically summarized in Fig. 1. Two major columns of command, one American and the other Vietnamese, coordinate their efforts in a unified operation. Within the CAF there are four Combined Action Groups (CAGs) which coordinate directly with the Vietnamese Province Chiefs (see Fig. 2), and maintain Aid Stations. There are 19 subordinate commands called Combined Action Companies (CACOs), distributed throughout the four CAGs. Commanded by U.S. Marine Captains, the 19 CACOs coordinate directly

with the Vietnamese District Chiefs. At the working level, the key functional units are the 114 Combined Action Platoons (CAPs), amalgamated and integrated units without separation of U.S. and Vietnamese personnel. Each CAP is comprised of 14 U.S. Marines—a rifle squad reinforced by a grenadier; one magnificent U.S. Navy Hospital Corpsman; and 35 Popular Force (PF) Vietnamese, paramilitary personnel from Vietnamese hamlets which the CAP seeks to protect.

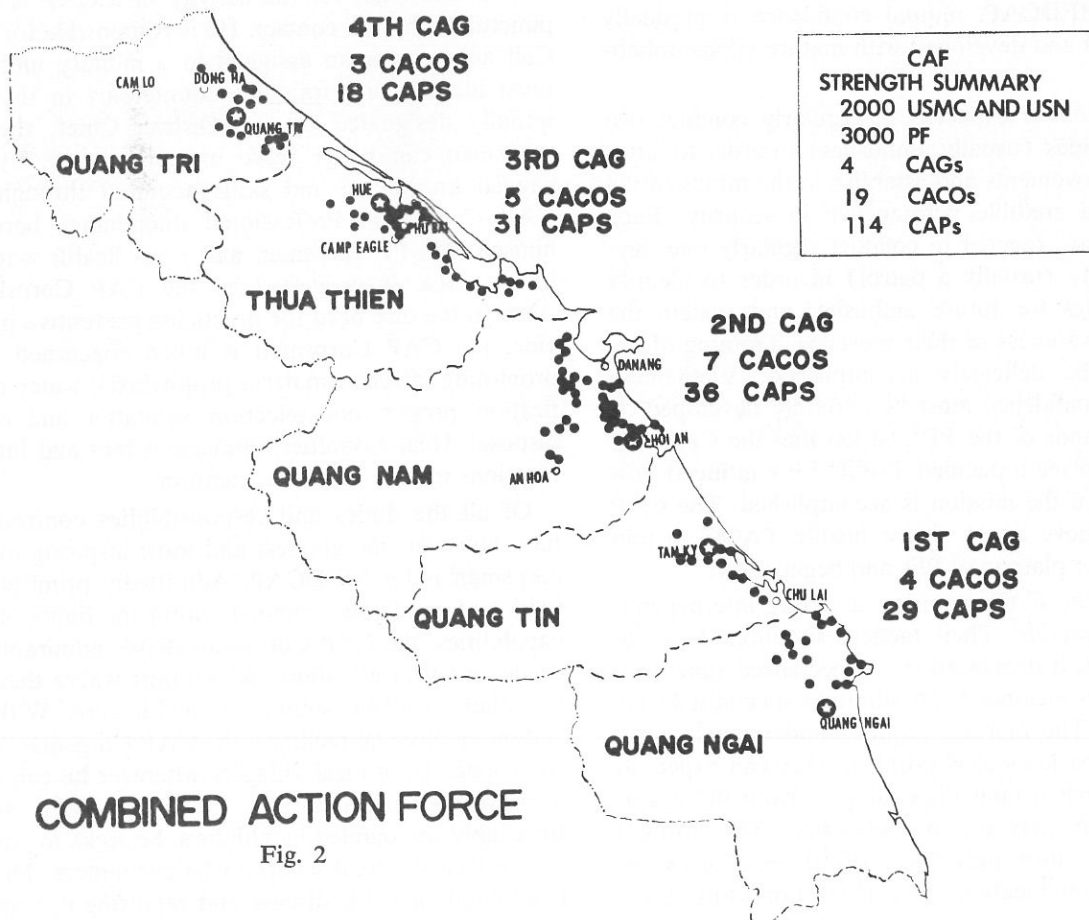
It is through the CAP that the CAF makes actual contact with the population. Each CAP is assigned a tactical area of coordination (TAOC) which is really superimposed on the tactical area of responsibility of the major military unit in the area. The TAOC assigned to a CAP must be an essentially hostile area under VC influence, and varies in size from 2 to 25 square kilometers with a population of approximately 2,000 to 4,000. The CAP establishes and maintains communication with the local populace. The CAP mission, to identify and destroy the VC infrastructure, is achieved through established patterns: protection of friendly political forces, protection of bases and lines of communication within the villages, providing public security, assisting major

CONTROL AND COORDINATION COMBINED ACTION FORCE

Fig. 1



* Effective 26 March 1970:
Under Operational Control, CG XXIV Corps;
Under Administrative Control (Command less OPCON), CG III Marine Amphibious Force



units in combined operations, acquiring intelligence on VC movement, interdicting VC movements within the assigned TAOC, assisting in rural development activities and training the PF. The CAP should not be associated in concept with the Civic Action Program; they are not synonymous. The CAP is a unique tactical force which enters an assigned hostile area and departs when that area has been pacified, leaving behind a Popular Force (PF) platoon which the CAP has trained to maintain continuous security.

In actual practice, approximately 12–18 months are required to pacify the usual TAOC and train the PF platoon that will maintain security after the marine squad departs to move into a new hostile TAOC. The CAP members live with the inhabitants of their TAOC. CAP members have no compound establishment; everything that they own, they hump. Their survival is contingent upon their mobility. Their shelter is borrowed from the local Vietnamese, from day to day, and care is exercised to ensure that a fixed pattern of location or movement cannot be defined. Through continued intimate contact with the populace, reticence and complacency are eventually overcome. Commencing with the children, often through MEDCAP, mutual confidence is gradually established and developed with mature village inhabitants.

Each CAP is expected to regularly conduct two night activities (usually ambushes) in order to interdict VC movements and establish in the minds of the populace a credible permanence in security. Each CAP is also expected to conduct regularly one daytime activity (usually a patrol) in order to identify suitable sites for future ambushes and sustain the people's awareness of their presence. Training of the PF must be delicately accomplished; Vietnamese skill and confidence must be carefully developed. It is in the hands of the PF platoon that the CAP will ultimately place a pacified TAOC for continued protection when the mission is accomplished. The CAP will then move on to a new hostile TAOC to join with another platoon of PFs and begin anew.

Among the CAP members a strong interdependence is inevitable. Their tactical situation does not allow for rigid demarcation of specialized functions, though each member is an admitted specialist in his own right. The marines require fundamental familiarity with basic medical problems they can expect to encounter, when immediate support from the hospital corpsman may not be accessible. The hospital corpsman, in turn, may have critical need for expertise: in communications to call in supporting arms,

air strikes, resupply, MEDEVAC helicopters, and properly direct them; and in defending lives of patients entrusted to his care. The need for cross-training is clearly bilateral.

The CAP Corpsman is a unique and interesting young man. Typically he is a high school graduate who joined the Navy at 18 years of age. Following three months at boot camp, he was trained for four months in Hospital Corps School and probably served at a naval hospital for an additional six-month period. He subsequently underwent intensified training for one month in Field Medical Service School. Arriving in Viet Nam thereafter, he reported directly to CAF Headquarters at DaNang for two weeks of further training in small unit tactics and personal response. He was then assigned to a CAP, becoming the sole medical authority, a one-of-a-kind expert in a hostile area for a marine squad, responsive to the medical problems of 2,000–4,000 civilians and willing to assume the awesome responsibilities imposed on him in an incredible situation.

First and foremost, the CAP Corpsman must be a competent marine. He must be a highly effective combat aid man, for the activity of a CAP is daily punctuated by VC contact. He is responsible for Sick Call as a corpsman assigned to a military unit. He must identify and train his counterpart in the PF; initially designated by the District Chief, the PF corpsman can better serve his own people by enhanced knowledge and skills acquired through the CAP Corpsman. Professional interchange between himself, the PF corpsman and rural health workers in the area, is promoted by the CAP Corpsman. Alert to the dire need for practicing preventive medicine, the CAP Corpsman is much concerned with promoting effective malaria prophylaxis, water purification, proper food selection, sanitation and waste disposal. Heat casualties, immersion foot and immunizations require constant attention.

Of all the duties and responsibilities confronting him, however, the greatest and most inspiring to the corpsman is his MEDCAP. Admittedly primitive in form and prudently confined within the limits of his capabilities, the CAP Corpsman strives admirably to render medical attention and support where there is no other available source of health care. Without station or physical facilities, the CAP Corpsman borrows space from local villagers wherever he can find it, moving about from day to day and place to place. Invariably surrounded by children, he seeks to advise and empirically treat whatever he encounters. Identifying communicable disease and reporting it, acquir-

ing intelligence information, and selecting for medical evacuation those patients whose conditions most warrant medical referral for definitive care, are all part of the CAP Corpsman's routine. Despite his instinctive compassion, he knows that he cannot remain to help create and build the resources which are so obviously needed. The dedicated zeal which permits him to accept life-endangering conditions in the practice of his art, must be denied satisfaction normally attained through building and creating. An enforced "will-'o-the-wisp" existence must continue on the part of CAP personnel and the CAP Corpsman must remain a key source of medical intelligence. He is supported medically by more sophisticated levels of definitive care such as the CAG Aid Station, and can medically evacuate selected patients to Province hospitals and MILPHAP teams in the case of Vietnamese civilians, and to U.S. military or Vietnamese (ARVN) military hospitals in the case of military casualties.

The CAP Corpsman invariably acquires a young Vietnamese protege, usually fluent in our language, 12-16 years old, male or female. The youngster serves the corpsman well as an interpreter, and learns to assist in MEDCAP efforts. Such youths are encouraged by the CAP Corpsman to seek formal training and careers as rural health workers in order to help their native villages with maximum effectiveness in the future. Although the CAP is ever placed in a tactical and imminent engagement situation, it must look ahead to its own ultimate withdrawal

*LCDR Metcalf recently returned from Vietnam and currently anticipates assignment to the Marine Corps Development and Education Command in Quantico, Va., where he will be in charge of instruction and curriculum development of Navy Medical Department matters as they relate to the Marine Corps. His assignment will include teaching responsibilities at Command and Staff College and Amphibious Warfare School, Basic School, and other marine schools. During the interim he has served as the administrative assistant to the Head, Academic Dept. at the Naval Medical School, NNMCS, Bethesda.

We are indebted to LCDR Metcalf for this excellent article and the splendid pictorial review which follows.

when the Vietnamese must again maintain their own security and control their own destiny.

Typical of the dedicated CAP Corpsmen was Hospitalman Rogers, CAP 1-4-3. He was critically wounded in action at 1850 on 7 December 1969, and died of his wounds one month later. Hospital Corpsman Rogers had dreamed of doing something special for the Vietnamese people; he had wanted to build a schoolhouse for the children. With all the decency, innocent fervor and trust that epitomize the finest of our Navy corpsmen, Hospitalman Rogers followed his star to the East. He wanted to help, and he gave all that he had. A MEDCAP dispensary was built in his honor by the villagers of An Ky in Quang Ngai Province. It is not a permanent edifice executed in marble on an impressive site. It is pathetically simple and homely, a mere lean-to with a small tin roof. But it represents the respect and gratitude of devoted mourners who, after all, had nothing more to give.

ABBREVIATED TERMS

CAF—Combined Action Force
 RVN—Republic of Viet Nam (South Viet Nam)
 CG—Commanding General
 VC—Viet Cong
 NVA—North Vietnamese Army
 CAG—Combined Action Group
 CACO—Combined Action Company
 CAP—Combined Action Platoon
 PF—Popular Force (Vietnamese paramilitary force)
 TAOC—Tactical Area of Coordination
 MILPHAP—Military Provincial Health Assistance Program
 TRAM Y-TÉ—Health worker





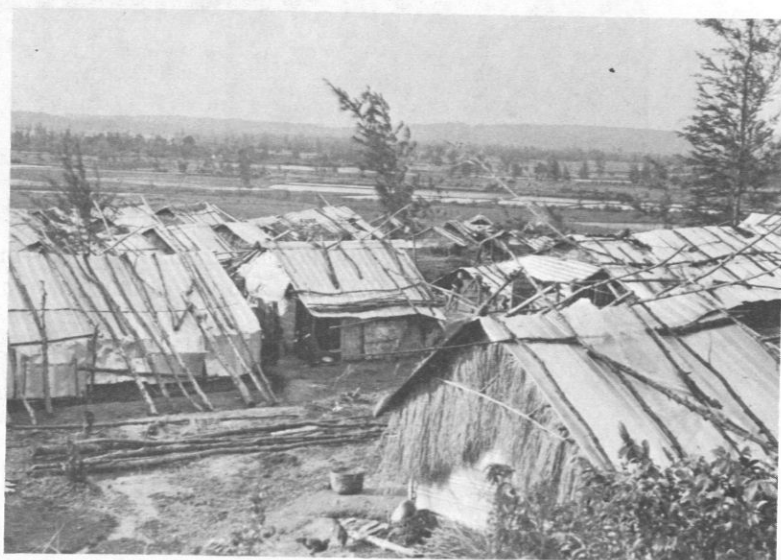
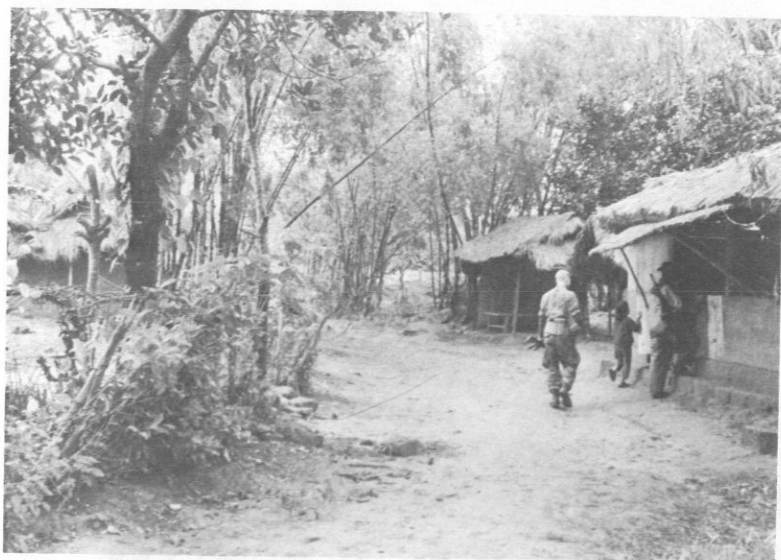
CAP Headquarters, DaNang



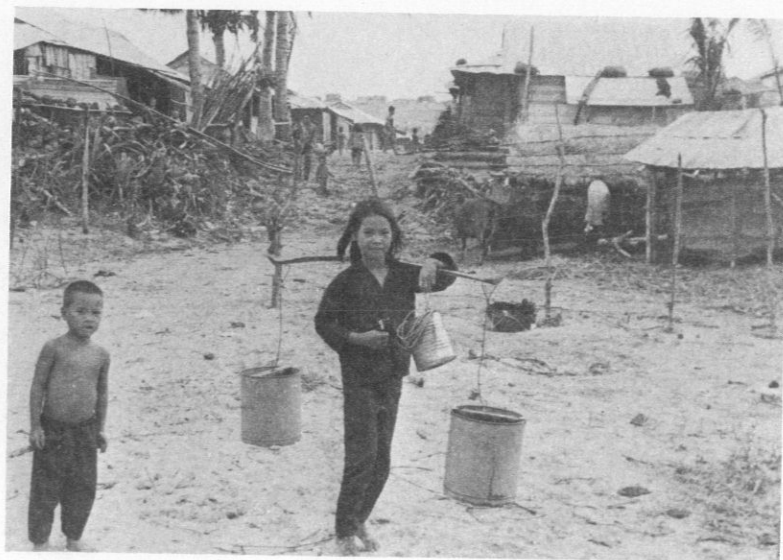


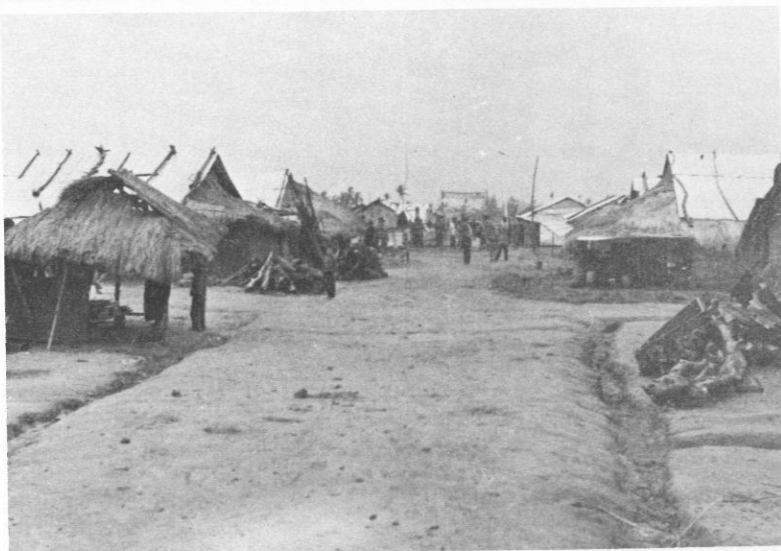
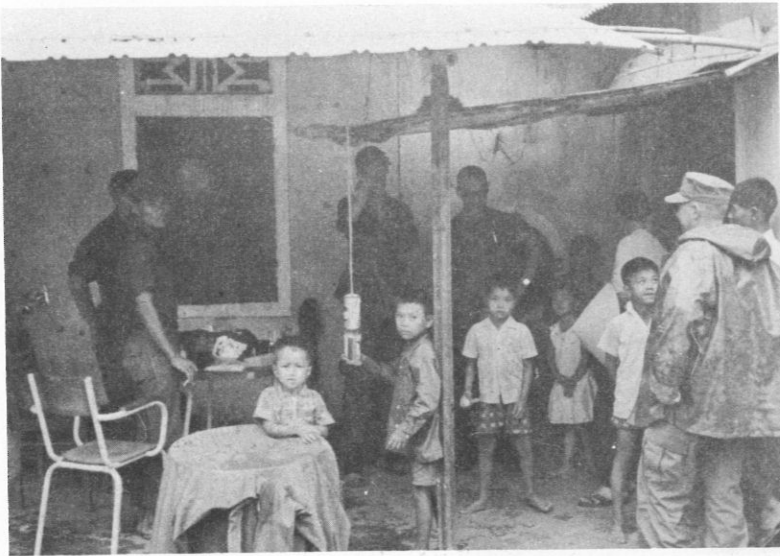
Observation Post north of Phu Bai—the only stationary CAP basecamp. (All others are mobile.)

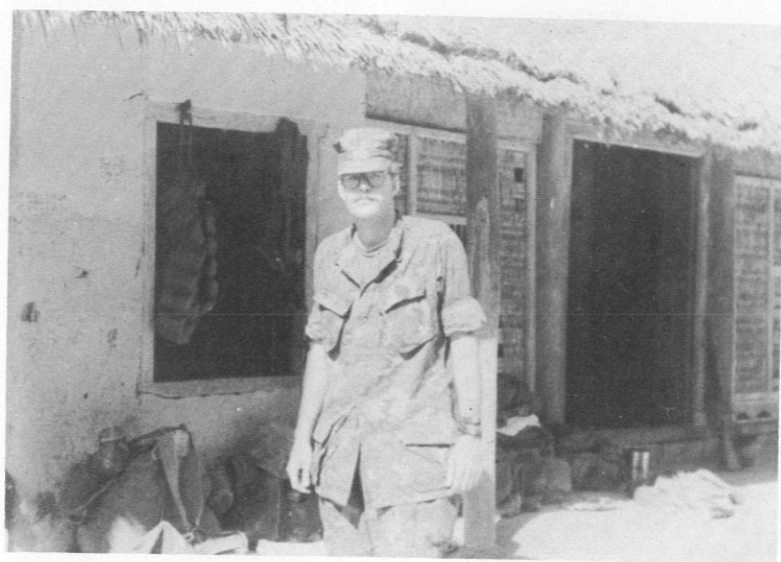




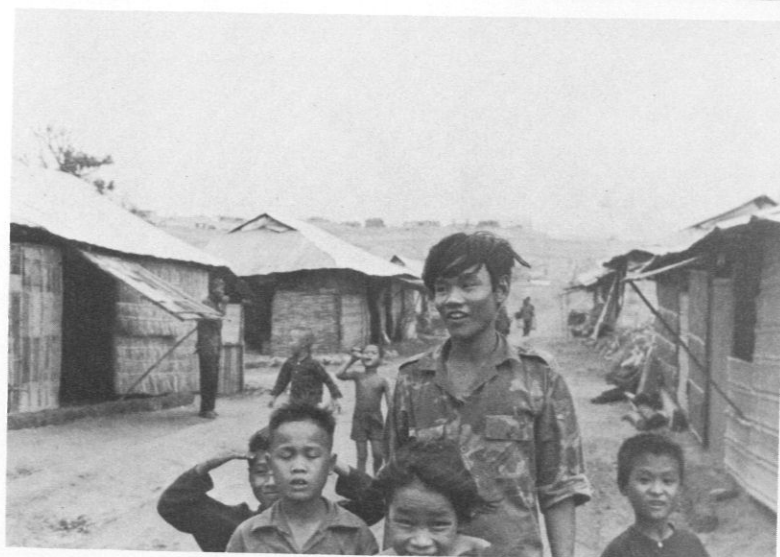
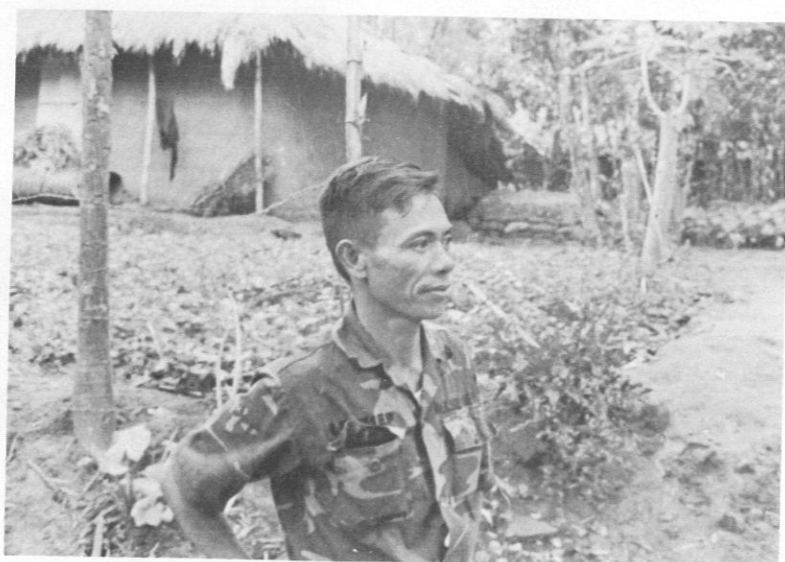








A Village Chief



Popular Force Paramilitary CAP member with local children.

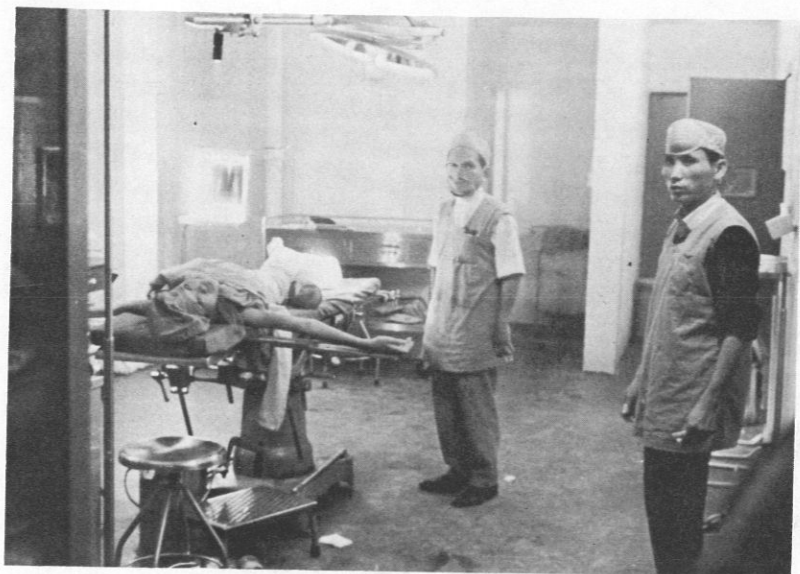


The Village Elder

A rural Y'-TÉ (Health Worker trained to render medical care by HM2 Hall). He proudly displays the medicine kit given to him—a prestige symbol (left).



A most hospitable local Y'-TÉ who was very fluent in English.



OR at Quang Tin Provincial Hospital



On the wards of a Provincial Hospital





CAP CORPSMAN Rogers is pictured standing before his refugee hamlet in Nov. 1969, prior to his death. The MEDCAP dispensary built in his honor appears below. 🇺🇸



REVIEW OF "CRITIQUE ON THE MANAGEMENT OF COMBAT CASUALTIES"

By CAPT E. J. Rupnik, MC, USN, BuMed, Code 316.

Photos by CAPT F. E. Jackson, MC, USN; Naval Hospital, Camp Pendleton, Calif.

For several years now Dr. Ben Eiseman, and others have encouraged the assembly of a group of Navy surgeons with previous Vietnam assignments to review their experiences for the purpose of determining how specific combat casualties are best treated, and how better methods for delivering medical care to these wounded men can be developed.

In an effort to take full advantage of limited available funds, it was decided that many surgeons with Vietnam combat experiences who would be attending the 56th Annual Congress of the American College of Surgeons, could conveniently attend the "Critique on the Management of Combat Casualties" just before the ACS meetings. This critique was not officially sanctioned as a portion of the program for the ACS 56th Annual Congress; therefore, attendance was

limited to active duty naval medical officers with the exception of a select number of invited guests.

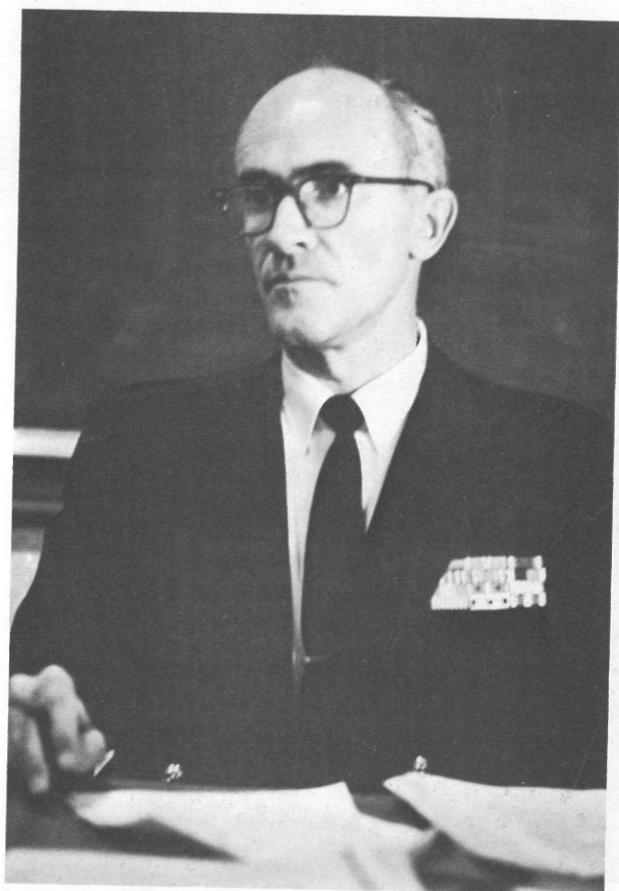
The meeting was chaired by CAPT T. H. Wilson, MC, USN, Chief of Surgery at the National Naval Medical Center, Bethesda, Maryland. (Fig. 1) Dr. Ben Eiseman, Professor of Surgery of the University of Colorado Medical Center, and Surgical Consultant to the Surgeon General, acted as moderator. (Fig. 2) The group consisted of 65 medical officers representing most of the surgical specialties. We were pleased that Dr. Louis M. Rousselot, Assistant Secretary of Defense for Health and Environment was able to attend most of the meeting.

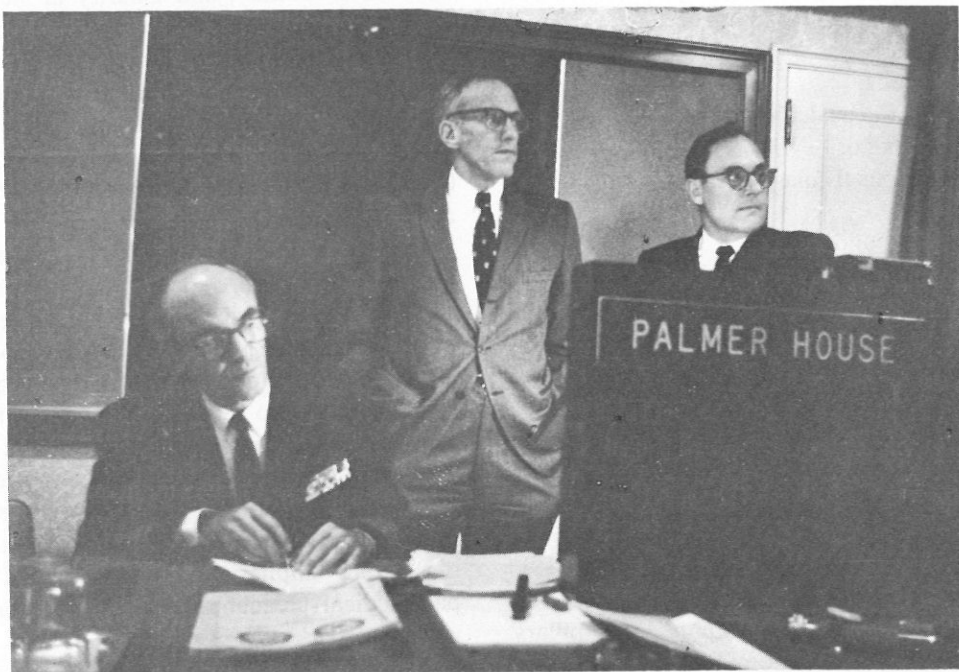
CAPT Wilson opened the meeting by sounding the charge to identify areas of weakness and make an earnest effort to seek solutions to these problems. Such is the purpose of the meeting, he reminded the group.

In his opening statement Dr. Eiseman said, "There is a tremendous source of talent here and this is the right time, the right place; we have the right people, and in another year this would be impossible to recapture." He reminded the group that the 14th century cartographers referred to areas on their maps as "Terra Incognita"—the unknown land. Dr. Eiseman remarked that the most sound basis for the Renaissance was the fact that the people were brave enough to identify what they did not know—this is Terra Incognita. And on the basis of Terra Incognita, they moved onward to greater things. With this analogy he further admonished attendees not to dwell on what they've done right, but rather consider how they may take better care of casualties in the next armed conflict.

Many specific clinical areas were considered during the meeting and time does not permit even a cursory discussion of these, which included:

1. The status of frozen blood,
2. Problems in resuscitation and anesthesia,
3. The hazards of succinylcholine in the severely injured,
4. Peripheral nerve injuries,
5. Central Nervous System injuries,
6. Salvaging the injured eye,
7. Management of retropharyngeal injuries,





From left to right: CAPT T. H. Wilson, MC, USN; Dr. Ben Eiseman; and CAPT Vernon Fitchett, MC, USN.



From left to right: Dr. Ben Eiseman; CAPT T. H. Wilson, MC, USN, and CDR Patrick M. McGuigan, MC, USN.

8. Management of neck wounds,
9. Thoracic surgical problems,
10. Hepatic wounds,
11. Colon wounds,
12. Pelvic wounds,
13. Post-traumatic acalculus cholecystitis,
14. Vascular wounds,
15. Arterio-venous fistulas,
16. Stress ulcers,
17. Septic shock, and
18. Coagulopathies of trauma.

Some problems which were identified as requiring further study and research effort are listed below.

1. Development of less expensive frozen blood program.
2. Investigation into the use of stroma-free hemoglobin and other blood substitutes or plasma expanders.
3. Development of a red cell farm using bone marrow cultures.
4. Development of better monitoring devices to measure cardiac output, stroke volume, and capillary perfusion, preferably of a non-invasive type. The Navy should extend their research efforts into simplifying, concentrating or miniaturizing their monitoring equipment.
5. Further investigation in the area of peripheral nerve grafts.
6. More research in the area of spinal cord injuries; although much progress has been made in the management of cranial injuries, little has been done to improve the management of spinal cord injuries.
7. More effort should be devoted to developing protective gear for the head and neck, particularly protective goggles and/or glasses to reduce the high incidence of blindness resulting from foreign bodies.
8. Further studies are required in the management of stress ulcers, septic shock, and coagulopathies of trauma.
9. Determine the role of the pump-oxygenator in the management of cardiac and mediastinal injuries. Develop a machine that would obviate the need for heparin.

It was emphasized during this meeting that efforts must be intensified in educating and training military surgeons during the interbellum periods in the proper management of combat injuries. The knowledge gained during the past five years must not lie fallow.

Since the number of severely injured patients admitted to naval hospitals during the interbellum period is not high, it was recommended that efforts be made to send "surgical teams" periodically to civilian

hospitals such as Bellevue, Parkland, Denver General, Cook County, and Charity in New Orleans in order to keep abreast of the latest state of the art in the management of such patients.

It was apparent that efforts to retrieve data on war injuries have proved inadequate and that further investigation into the use of the computer and "on-line" data-retrieval systems is mandatory if lessons are to be learned from past experiences.

The group then discussed various methods of delivering medical care to the combat casualty. It was concluded that in view of the prevailing doctor shortage, less emphasis should be placed on getting the medical officer up to the front line where facilities are inadequate to render anything but the most primitive type of first aid. Effort should be directed toward developing floating casualty treatment centers, supplied with the latest sophisticated equipment to adequately and properly manage all types of injuries. More emphasis should be placed on utilizing paramedical personnel to render the first aid treatment.

In approximately two years the Navy will commission the newly designed LPH (Helicopter Aircraft Carrier used for vertical assault landing). Built into the interior of this ship will be the type of casualty treatment center referred to. It will have four major operating rooms, two minor operating rooms, a large triage area with adequate X-ray and resuscitation equipment, and the capability of handling 3-400 patients. This development was applauded by the group.

Since the Navy is responsible for the medical support of the Marine Corps with the putative concept of an elite corps, it behooves us to provide the best medical care possible. It is not unreasonable to envision in the future the use of a nuclear-powered hospital ship, built along the lines of an aircraft carrier, to support future Marine Corps assault landings. These facilities could be used to render medical support not only for the military but also in the case of natural disasters both domestic and foreign. It was further envisioned that this ship would have its own dedicated helicopter ambulance capability.

Dr. Eiseman closed the meeting by reminding the group that the academic community stands ready to help. He commented that Bellevue, Parkland and Denver General hospitals are all engaged in the management of large numbers of severely injured patients and that he, Dr. Frank Spencer, and Dr. Tom Sheris were more than willing to lend any assistance that the military might need in its training and research efforts. ☸

JUNIOR NURSE CORPS OFFICERS' COUNCIL: AN ACTION-ORIENTED ORGANIZATION

By LCDR Nancy L. Lundquist, NC, USN (Advisor, JNCOC) and LTJG
Loretta M. Kawalec, NC, USNR (Ass't Educational Coordinator), Naval Hospital,
Philadelphia, Pa.

Perhaps one of the most perplexing problems confronting professional nurses—especially the new graduate—is the arrival at a suitable definition of their current role within the setting of the health team. Enumerating those unique components which distinguish the registered nurse is frustrating and frequently fruitless when the expectations and limitations placed upon the nursing profession change and expand almost daily. The varied educational background and extensive interpersonal relationship training of today's nurses qualifies them to contribute much more dynamically to the health picture of the patient and his family than is generally appreciated.

Strangely enough, the expanded qualifications and potential of today's nurse augment the frustration engendered by reluctance on the part of health team members, even the nurses themselves, to reject the antiquated image of the nurse as the mute handmaid of the physician. Compounding this overall identity crisis, the newly-commissioned Navy Nurse Corps Officer is further faced with the challenge of assuming the responsibility of a naval officer.

With this in mind, on 24 July 1968, an organization was conceived to involve the younger nurses at Naval Hospital, Philadelphia, affording them an effective voice within the formal Nursing Service organization. With the support of CAPT Eleanor J. Maguire, then Chief of Nursing Service, the Junior Nurse Corps Officers' Council (JNCOC) was formed. In keeping with its original objectives, the aims of the JNCOC are as follows:

(1) to assist in the transition from civilian to military life within the established framework of the Naval Hospital, Philadelphia, and of the United States Navy;

(2) to provide a means for better communication and interchange within the established setting;

(3) to promote social as well as professional growth; and

(4) to develop tools and means for application of new concepts and innovations.

Membership in the Council is open to Nurse Corps Ensigns, Lieutenants Junior Grade, and Lieutenants who seek to improve patient care and their own professional proficiency.

In its earlier days, the Council held its meetings in whatever space was available and at whatever time a group of two or more could assemble. Today, regular meetings are held at 1300 in the Commanding Officer's Boardroom on the second Wednesday of each month. It is not uncommon for members to attend this meeting in lieu of a lunch break or on their day off. The proceedings, lasting at least an hour, follow informal parliamentary procedure.

The formal administration of the Council consists of three officers who are elected by a majority vote. In its earlier days, when both membership and interest were at a minimum, the Council Chairman doubled as Secretary. In November 1969, the following duties were defined as general guidelines for the Council officers:

Chairman

- a. Calls the meeting to order,
- b. Controls and directs the meeting to its order of business,
- c. Guides discussion in an orderly way,
- d. Stipulates each motion before it is discussed and voted upon,
- e. Puts motions to vote and announces the outcome,
- f. Ensures adherence to parliamentary procedure,
- g. May appoint committees,
- h. May render assistance in the wording of motions.

Co-Chairman

- a. Assumes the duties listed above in the absence of the Chairman, or at such time as the Chairman cannot be present.
- b. Assists the Chairman in the performance of his duties upon request.

Secretary

- a. Keeps an accurate record of each meeting.
- b. Keeps an up-to-date roll of members.
- c. Keeps a record of all committees.
- d. Provides the Chairman with a list of pending and potential business before each meeting.
- e. Handles correspondence of the organization.
- f. Notifies members of the meetings.
- g. Serves as a treasurer, should the need arise.



Officers and Advisor plan ahead for future Council endeavors. Council officers seated, left to right: LTJG's B. Crawford; S. Randles; L. Kawalec; J. Zarola (now in Vietnam); C. Oehlschlaeger. Standing in rear is LCDR N. Lundquist, Council Advisor.

In addition to the three Council officers, each of the six nursing supervisory areas within the hospital provides a representative, who acts as a liaison between the Council and the nurses within her area. The AREA REPRESENTATIVES volunteer their services and are responsible for the following:

- a. Post or circulate minutes of the JNCOC meetings to ensure that junior nurses who were unable to attend may be well informed;
- b. Announce upcoming JNCOC meetings and activities;
- c. Report changes or problems within their areas at each meeting; appoint substitute area representatives when unable to attend a meeting;
- d. Assist with special projects such as party plans, questionnaires, and monthly surveys of the nurses in their areas for updating the "For Sale, For Loan, Wanted, Give-Away" booklet; and

- e. Act as unofficial members of the orientation team ("guardian angels" for nurses new to the area—especially nurses who have switched areas within the hospital).

A supporting and guiding role is assumed by the ADVISOR, a relatively senior officer who should appreciate and share a respect for the goals of the Nursing Service, as well as for the desire of youth to seek change within the establishment. When the Council becomes operative through organized efforts of involved and goal-directed young nurses, the function of an Advisor becomes relatively simple because only in the most complicated of Council endeavors is advice required. However, during the developmental stages of a Council, the Advisor with a working knowledge of group dynamics and leadership skills, may have to interpret the role of Advisor rather broadly. During this stage some of the Advisor's responsibilities are perceived as follows.

Administrative

- a. Attends supervisory meetings in order to facilitate coordination of Council actions with Nursing Service objectives.
- b. Provides necessary facilities and resources for publishing "Helpful Hints Letter for Newcomers".
- c. Maintains liaison with Assistant Chief, Nursing Service; procures arrival dates of Junior Nurse Corps Officers scheduled to report aboard.
- d. Coordinates activities with the Council Secretary concerning assignment of sponsors for incoming Junior Nurse Corps Officers.
- e. Informs Educational Coordinator of changes in "Helpful Hints Letter" and of the dates for Council meetings.
- f. Evaluates and approves minutes of each Council meeting before forwarding them to Chief, Nursing Service.

- g. Reports to Chief, Nursing Service, whenever indicated.

Advisory

- a. Consults frequently on an individual basis with the Council Chairman concerning short and long term goals, organization, management, and promotion of the JNCOC meetings.
- b. Counsels Secretary concerning the preparation and maintenance of minutes.
- c. Maintains "open-door" policy for all Junior Nurse Corps Officers who wish to communicate on an individual basis.
- d. Attends all formal JNCOC meetings.
- e. Creates and sustains a climate of communication.
- f. By acting in an advisory capacity, renders assistance in exploring and resolving problems which confront the Council.



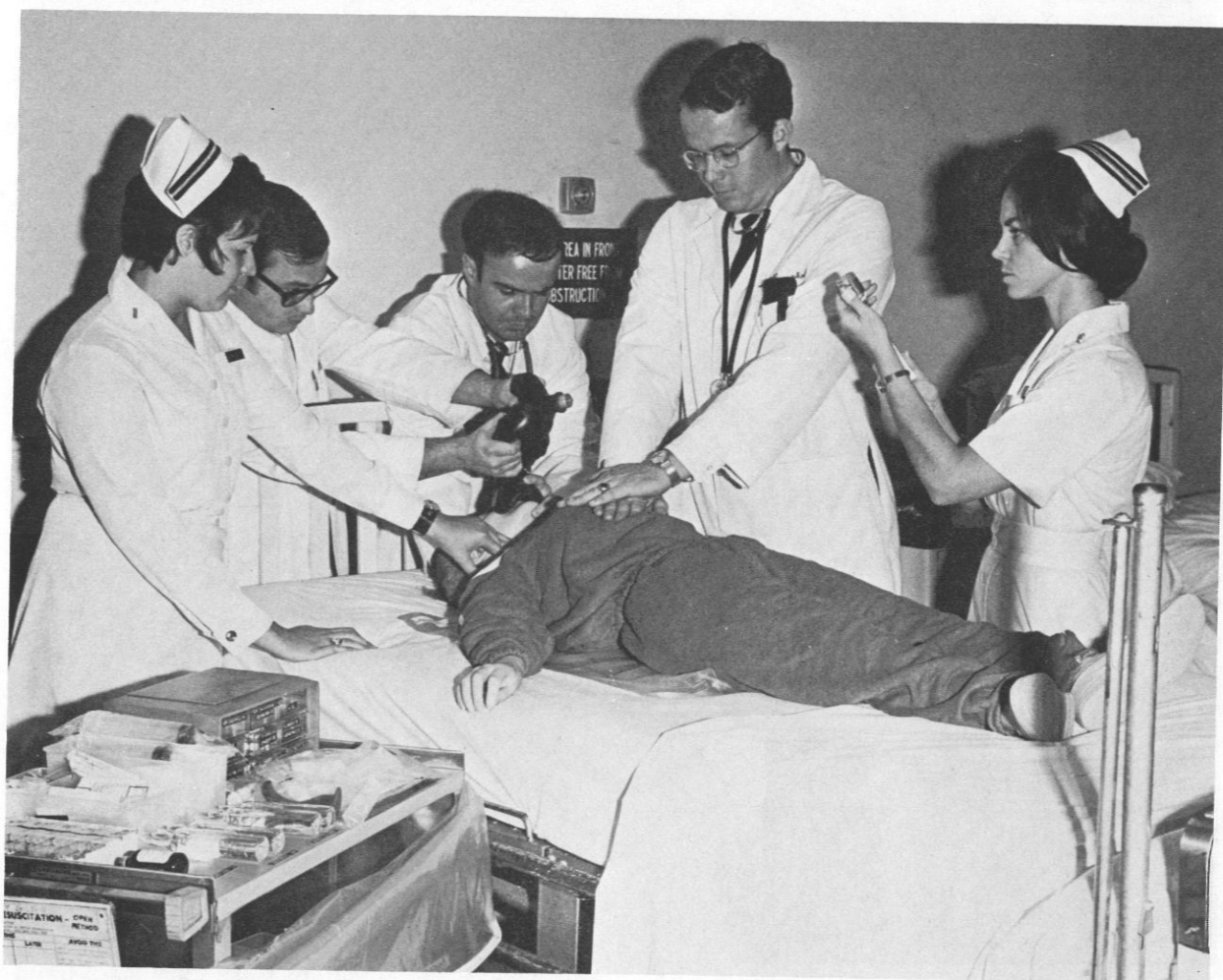
LT Humphries, MC, USNR, recently appointed as a member of the Advisory Board to the Officers' Mess (OPEN), acquires Council suggestions for future social activities desired by younger officers from LTJG Kawalec.

It is obvious that the Advisor, to be effective, should be sufficiently enthusiastic and motivated to "sell" the JNCOC which may be regarded as a threat or as an unproductive distraction from patient care by supervisory personnel. The junior nurses themselves who may consider it futile to undertake any effort which seeks to advance changes within a large organization, are extremely reticent about participation. These attitudes reflect the growing pains that seem to mysteriously vanish after about one year. Similarly, the Advisor may be required to cope patiently with mounting frustrations during the initial period of JNCOC development; the satisfaction of guiding this valuable Nursing Service adjunct to maturity will provide ample incentive however.

Frequently, the Council serves as an open forum where problems are aired and possible solutions are proposed by the other nurses. Common topics which

invite consideration include managerial difficulties, personality conflicts, safety hazards, clarification of specific procedures, and patient rehabilitation suggestions. Sometimes mere communication through active discussion is sufficient to resolve a problem. At other times, discussion may result in forwarding of recommendations to the proper authorities for further consideration and appropriate action. Perhaps a compromise satisfactory to all concerned may prove to be the most realistic solution to a complicated problem which has been considered by the Council from several perspectives. Acceptable compromise is best achieved, perhaps, in the setting provided by the JNCOC where diversified views, youthful energy, innovative spirit and a desire to grow and learn, prevail.

A recent Council recommendation, emphasizing the need for keeping open the lines of communica-



Council members work out a cardiac arrest drill with other members of the hospital staff. From left to right: ENS McKee, NC, USNR; HM3 Snyder, USN; LT Powell, MC, USNR; LT Humphries, MC, USNR; LTJG Kawalec, NC, USNR.



JNCOC Sponsor LTJG Crawford (right) gives ENS VanSchep (left) a hand in moving into her new apartment.

tion between the junior-ranking nurses and the new interns, led to a productive meeting between representatives from both groups. During the meeting the following views were aired and were generally accepted.

(1) Medical officers should not disregard disciplinary problems on their wards; their involvement and support facilitates proper control and management by the staff.

(2) Routine orders should be written during the day shift whenever possible since PM or Night duty nurses cover several wards and cannot be as familiar with individual cases which present no urgent problem.

(3) STAT orders should be utilized only when necessary in the interest of efficient utilization of available personnel.

(4) Newly arrived and inexperienced corpsmen should not be asked to perform procedures they are not qualified to perform without appropriate supervision.

(5) In an effort to assist, a junior nurse may apprise a doctor of a hospital instruction. The intent is usually to help, not hinder, the process of rendering good patient care.

(6) Intercommunication between doctors and nurses concerning patient care and ward administration is essential to ensure that:

- a. useful information is conveyed to watch officers by the ward nurse;
- b. instruction of corpsmen is enhanced;
- c. disagreements over administrative problems shall not arise;

(Continued on page 52)

DENTURE IDENTIFICATION

A recent article¹ on denture identification has been reviewed and found to have merit for adoption. Its value is in the forensic identification of victims involved in crashes and/or fires. The Manual of the Medical Department reflects the new requirements for denture identification.

MANMED article 6-104 provides that:

(1) Each dental prosthetic facility shall, when possible, incorporate into the denture base or other

¹ Jerman, A. C. Denture identification, JADA 80:1358, June 1970.

suitable part of each complete or partial denture, the following data pertaining to the patient.

(a) Social Security Account Number (SSAN), followed by a dash and capital N for Navy, M for Marine Corps, A for Army and AF for Air Force, whichever applies. No other information shall be inscribed.

(2) The inscription shall be typed on stainless steel metal .001 inch thick and inserted in the denture base and covered with clear resin so that the inscription is legible.

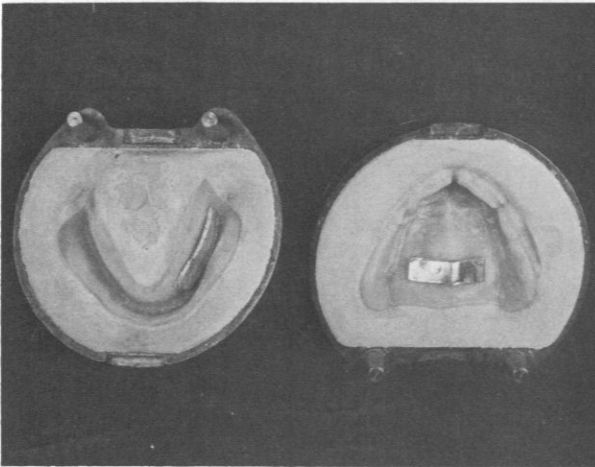


Fig. 1.

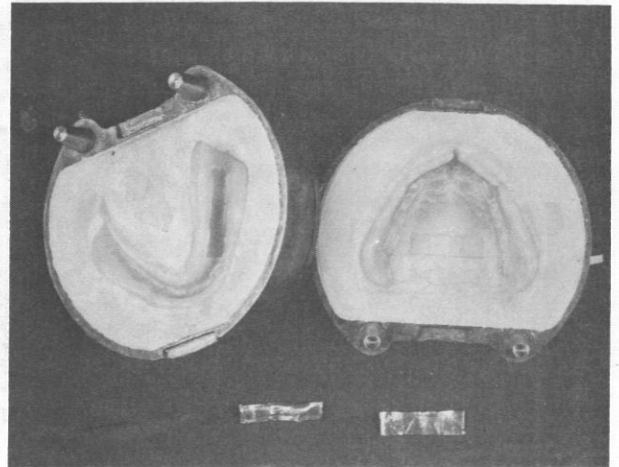


Fig. 2.

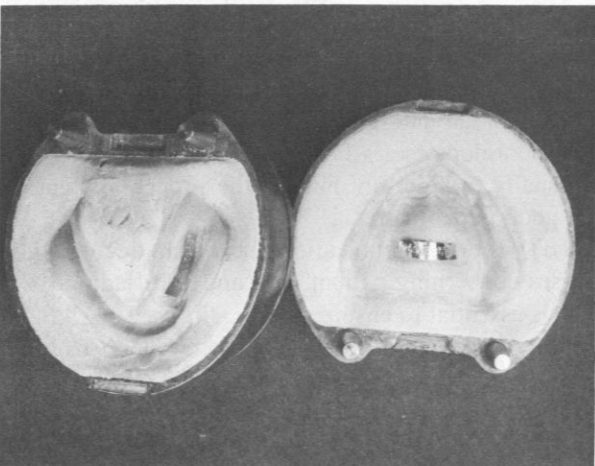


Fig. 3.

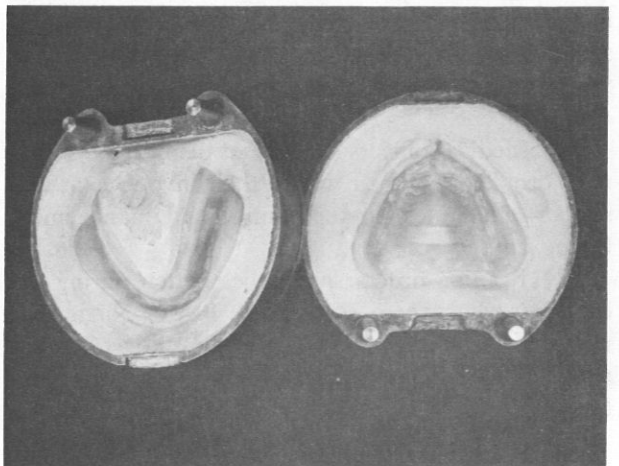


Fig. 4.

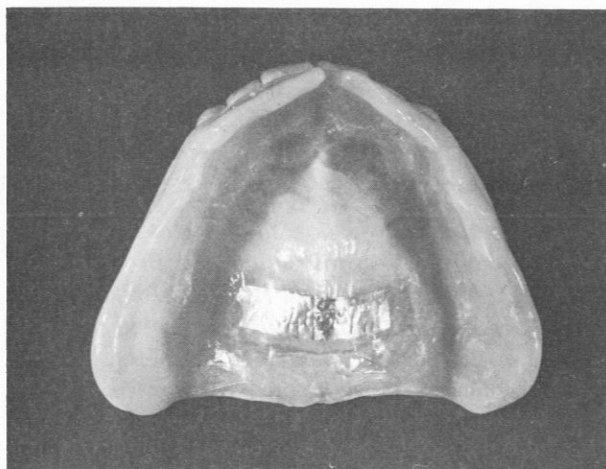


Fig. 5a.

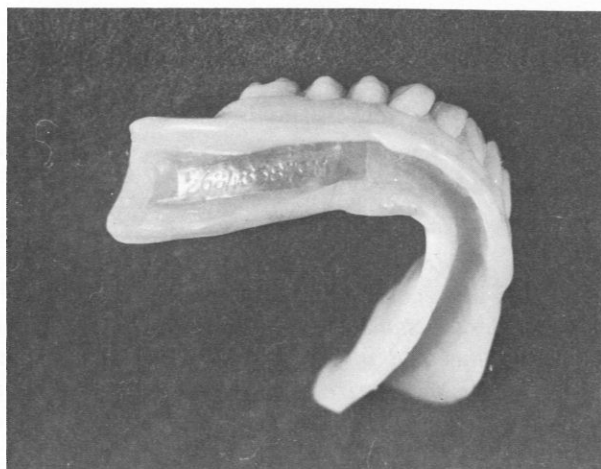


Fig. 5b.

Laboratory Procedure

A. Procedure for incorporating the metal strip is as follows:

1. After trial packing is complete, place a shim the thickness of one piece of base plate wax on the denture resin where it is desired to locate the identification number. The shim should be slightly larger than the piece of stainless steel to be incorporated in the denture. (A piece of wax covered with tinfoil will serve as a shim.) (Fig. 1)

2. Cover the resin and shim with Densilk and trial pack again. Open the flask and remove the shim. This will leave a depression in the tissue surface of the resin. (Fig. 2)

3. Wet the depression with monomer and place the identification strip in the depression. (Fig. 3)

4. Cover the metal with clear resin and trial pack. (Fig. 4)

5. Finish the denture in the usual manner (Figs. 5a and 5b.)

In this procedure the metal will be imbedded deeply enough so that if a pressure area is detected in that part of the denture overlaying the identification strip, it may be relieved without exposing the shim stock, yet the patient's social security account number will remain visible for identification purposes. **CAUTION.** Once the clear resin has been packed, do not remove it and replace it as the second application of the resin will cause it to displace the pink material to such an extent that the identification strip will be visible from the tongue side of the denture base. An excessive amount of clear resin placed over the shim may have the same effect.

Shim stock metal is available at Thompson & Cook Inc., 4200 Kenilworth Road, Bladensburg, Maryland 20710, at a cost of \$14.25 for a roll 6" wide and 50" long.—Code 611, BuMed. ☸

MAST AIDS 100

In the first 10 weeks of Project Military Assistance for Safety in Traffic (Project MAST) more than 100 seriously injured or ill civilians were airlifted by military helicopters to civilian hospitals.

The project was started July 15 at Ft. Sam Houston, San Antonio, Tex., and is now in operation at four other bases: Ft. Carson, Colo.; Ft. Lewis, Wash.; Mountain Home AFB, Idaho; and Luke AFB, Ariz.—Washington, D.C. (AFPS). ☸

THE GASTROENTEROLOGIST CORNER

CAPT Frank P. Brooks, MC, USNR, is the Chief of the Gastrointestinal Section at the Hospital of the University of Pennsylvania and Professor of Medicine and Physiology at that institution. Dr. Brooks is the primary civilian consultant for the Gastroenterologic Training Program at the Naval Hospital, Philadelphia, and provides outstanding academic support for the program. His interest and enthusiasm in subspecialty training in the field of Gastroenterology have provided major impetus for GI training in the Navy.

This article summarizes the findings presented at the recent Nobel Symposium on Frontiers in Gastrointestinal Hormones held in Stockholm in July, 1970.

The accompanying photograph shows CAPT Brooks on Ward Rounds in the Gastrointestinal Unit at the Naval Hospital, Philadelphia during a recent period of active duty.

GASTROINTESTINAL HORMONES AND CLINICAL GASTROENTEROLOGY

By CAPT Frank P. Brooks, MC, USNR

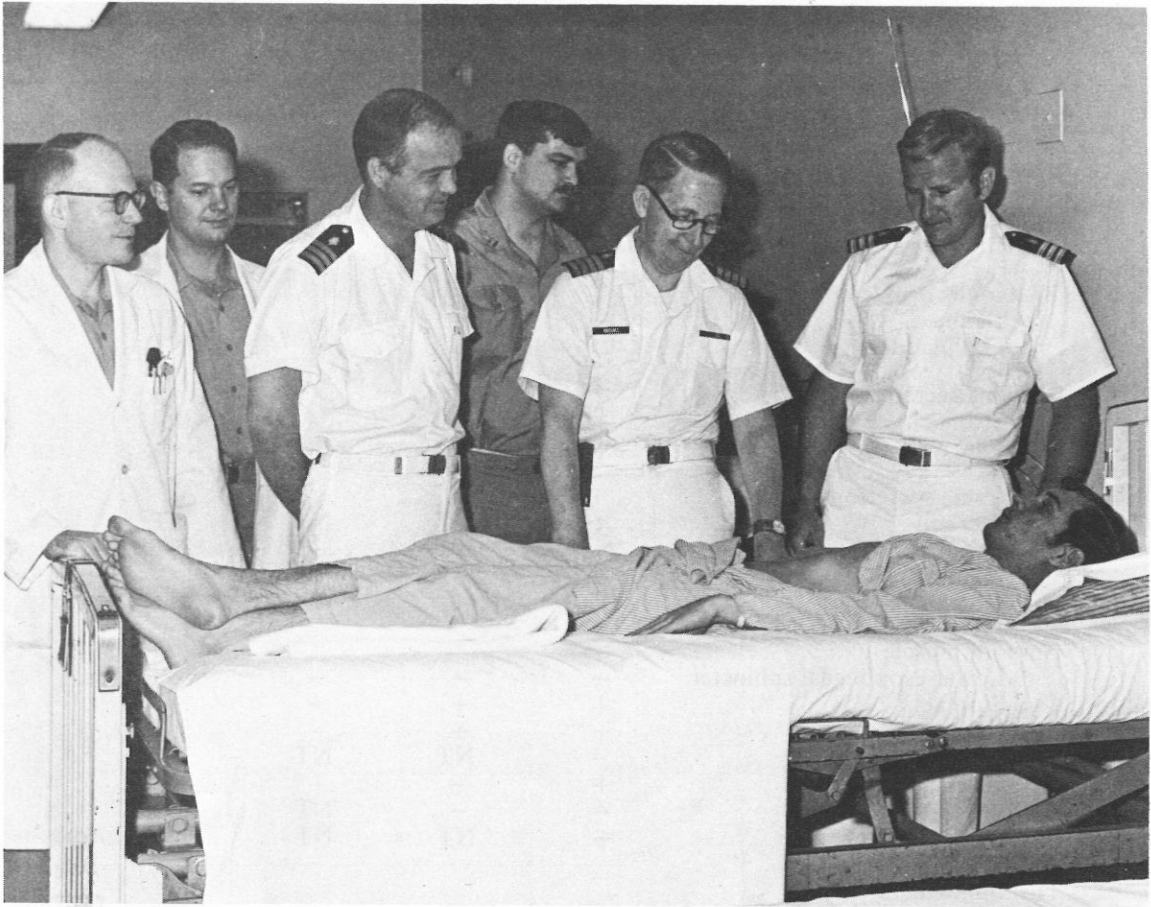
With the isolation and synthesis of the hormone gastrin, followed by similar characterizations of secretin and cholecystokinin (pancreozymin), it seemed reasonable to expect some major advances in our understanding of the major gastrointestinal diseases of secretion—peptic ulcer and pancreatitis. Unfortunately, this has not come to pass, and except for the use of an immuno-assay to determine the levels of gastrin in the serum of patients with the Zollinger-Ellison Syndrome, the practicing physician probably sees little impact of these major accomplishments on gastrointestinal physiology. Nevertheless, with the aid of pure substances, a number of concepts have already been formulated and will shortly be tested for their application to clinical gastroenterology.

1. *Common structure:* Four peptides with important actions on the gastrointestinal tract are known: gastrin and cholecystokinin, and secretin and glucagon. Gastrin is a 17-amino acid polypeptide derived from granules within epithelial cells of the pyloric glands and recently found within delta cells of the islets of Langerhans. It exists with and without a sulfate group attached to the polypeptide chain (gastrin II and gastrin I respectively). Cholecystokinin (identical with pancreozymin) is a 33-amino acid polypeptide isolated from porcine small intestinal mucosa from an unidentified cellular source. The remarkable fact is that these two hormones share a

common C-terminal tetrapeptide—Trp-Met-Asp-Phe-NH₂. On the other hand, two hormones with actions often opposing those of gastrin and cholecystokinin, secretin and glucagon, also share portions of their structure. Secretin is a 27-amino acid polypeptide with a helical structure. Glucagon has 29 amino acids, 14 of which correspond to those in secretin.

2. *Common target organs:* Grossman recently proposed a schema for the sites of action of the four hormones, some of which have been confirmed experimentally (Table 1). Nevertheless it suggests the variety of actions of these humoral agents. The following sites of action have been noted for at least one of the hormones and from theoretical considerations to follow, might be expected of all: water and electrolyte secretion and absorption, enzyme secretion, endocrine secretion (release of insulin), smooth muscle, histamine metabolism, amino acid uptake, growth, metabolic effects (lipolysis and glycogenolysis), ionotrophic and chronotrophic effects on the heart, and alterations in blood flow. Physiologic actions must be differentiated from those of only pharmacologic interest, but it would be well to await broad experience in a variety of animal species before excluding biological significance.

3. *Mechanism of action:* In order to bring this confusing array of actions into some kind of logical system, Grossman has proposed a common receptor site for the four hormones with two subsites, one for



gastrin and cholecystokinin and one for secretin and glucagon. Occupation of one of the subsites alters the action of the other hormones reaching the second subsite. Such a theory would account for some of the interactions between hormones. The application of enzyme kinetics to hormones and receptors can account for the biphasic action of cholecystokinin (CCK) on gastric secretion. When CCK alone occupies the gastrin-CCK subsite, acid secretion is stimulated; when gastrin and CCK compete for the same subsite, gastrin which has the stronger stimulatory action is unable to reach all receptors and therefore CCK appears as an inhibitor of gastrin. Regardless of the final validity of this concept it has already stimulated conceptual proposals and new experiments.

Similarly, the role of cyclic AMP as a messenger of hormonal action is very much at the forefront of research with the gastrointestinal hormones. Recent evidence suggests that increases of tissue cyclic AMP and secretion may be separated.

4. *Release of GI hormones from intestinal mucosa:* Gastrin, CCK, secretin and intestinal glucagon

are probably released from the epithelial cells of the GI tract. Little is known of the factors controlling the release of intestinal glucagon except for sugars in the intestine. The other three are released in response to simple substances within the gut lumen and by a process probably involving a cholinergic nervous reflex arc. Release can be retarded by anticholinergics and local anesthetics. Release is retarded following vagotomy and in the case of gastrin vagal stimulation is a stimulant to release from the pyloric antral mucosa. Once the hormone is released, the responsiveness of the target organs is also dependent in part upon intact vagi. Release in response to chemical substances in the gut appears to depend upon the amount rather than concentration of the stimulant in the case of secretin and CCK.

5. *Physiological control:* In the case of gastrin, the predominant mechanism of controlling blood levels in man appears to be the inhibition of release by acidification of the antrum. Secretin levels in the blood rise in response to acid in the duodenum and oral administration of glucose. Blood levels of CCK have yet to be measured but presumably reflect the

TABLE 1.—Actions of the Four Gastrointestinal Hormones

The symbols have the following meanings: + stimulates, — inhibits, 0 no effect, NT not tested. (Modified from M.I. Grossman.)

	Gastrin	CCK*	Secretin	Glucagon
Water-electrolyte secretion				
Stomach	+	+ —	—	—
Pancreas	+	+	+	—
Liver	+	+	+	+
Brunner's glands	+	+	+	+
Water-electrolyte absorption				
Ileum	—	—	—	NT
Gallbladder	0	0	—	NT
Enzyme secretion				
Stomach	+	+	+	0
Pancreas	+	+	+	—
Endocrine secretion				
Secretin	+	NT	NT	NT
Gastrin	NT	NT	—	NT
Insulin	+	+	+	+
Glucagon	0	+	0	NT
Smooth muscle				
Lower esophageal sphincter	+	—	—	—
Stomach	+	+	—	—
Intestine	+	+	—	—
Ileocecal sphincter	—	NT	NT	NT
Gallbladder	+	+	+	NT
Sphincter of Oddi	—	—	NT	—
Uterus	+	NT	NT	NT
Histamine metabolism				
Release of histamine	+	NT	NT	NT
Histidine decarboxylase	+	+	0	NT
Amino acid uptake				
Gastric mucosa	+	NT	NT	NT
Pancreas	NT	+	0	NT
Growth				
Gastric mucosa	+	NT	NT	NT
Pancreas	NT	+	0	NT
Metabolic				
Lipolysis	0	0	+	+
Glycogenolysis	0	0	0	+
Heart				
Rate	NT	NT	+	+
Stroke volume	NT	NT	+	+
Blood flow				
Superior mesenteric artery	+	+	+	+
Hepatic artery	NT	NT	—	—
Femoral artery	NT	NT	+	+
Gastric mucosa	+	NT	—	—
Pancreas	+	+	+	NT
Small intestine	+	+	+	+

*CCK = Cholecystokinin

presence of amino acids in the duodenum and jejunum.

6. *Gastrointestinal hormones of man in health and disease*: Largely as a result of the development of immuno-assay techniques, a composite view of the role of gastrin in the control of acid secretion has been put forward and may be tested for its relation to gastric disease. The normal serum gastrin in fasting adult subjects is about 40 picograms (10^{-12})/ml. After feeding, it rises by about a factor of 40 pg/ml. The values for men are somewhat higher than women, and there is a significant increase with advancing age. Acidification of the antrum reduces serum gastrin and alkalinization increases the serum level. Betazole (Histalog) increases serum gastrin but insulin hypoglycemia and alcohol have little effect.

Atropine in doses which inhibit acid secretion not only failed to block the rise in serum gastrin after feeding but actually increased it. There is no significant difference in fasting serum gastrin levels between patients with duodenal ulcers and controls. Patients with pernicious anemia have values averaging about 1000 pg/ml. Some patients with gastric carcinoma also have elevated values. Patients with the Zollinger-Ellison Syndrome have levels from 600–350,000 pg/ml.

The conclusion to be drawn from these data is that the serum gastrin is controlled primarily by the pH of the gastric content bathing the antrum, and that alkalinization of the antrum with consequent elevation of the serum gastrin is the major factor in altering its level. In patients with pernicious anemia acidification of the antrum lowers serum gastrin dramatically, but in normal subjects, acidification is less

effective. The failure of atropine to block the hypergastrinemia suggests that inhibition of gastrin release by antral acidification rather than varied stimulation of gastrin release by chemical agents or distention is the more important factor in maintaining the serum gastrin level.

An attractive hypothesis would be that duodenal ulcer is a disease characterized by a high serum gastrin level in relation to the pH of the antrum. In other words patients with duodenal ulcer may fail to inhibit gastrin release at an intragastric pH which would do so in the normal population.

The immuno-assay for secretin has not yet reached the level of specificity obtained with gastrin, but already patients with diabetes have been found to have elevated serum levels returning to normal after insulin therapy. A satisfactory immuno-assay for cholecystokinin has not yet been developed.

It would appear that developments in the biochemistry and physiology of gastrointestinal hormones may yet contribute importantly to the clinical management of gastrointestinal disease.

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MEDALS AND AWARDS

A total of 395 medals and awards for service in Vietnam have been awarded to Medical Department officers: 182 MC, 96 DC, 56 NC, and 61 MSC officers. A total of 981 medals and awards for service in Vietnam have been awarded to Medical Department enlisted men: 888 to Hospital Corpsmen and 93 to Dental Technicians. In addition, approximately 4,563 Purple Heart Awards have been presented: 31 to officers, 4,502 to Hospital Corpsmen and 30 to Dental Technicians.

The exact number of Air Medals awarded is not available, since not all "field citations" are made known to BuMed.☞

TECHNIQUE FOR MOUNTING REMOVABLE PARTIAL DENTURES ON AN ARTICULATOR

Phillip V. Reitz, DDS, Naval Dental Clinic, Yokosuka, Japan. Reprinted with permission from J Prost Dent 22: 490-494, 1969; copyrighted by The C. V. Mosby Co., St. Louis, Mo.

There are many occasions when it becomes necessary to correct the occlusion of a removable partial denture. Occlusal discrepancies after a partial denture reline procedure and drifting of opposing teeth are but two examples. Equilibration in the mouth is both difficult and time consuming. The technique presented will obviate many of the problems inherent in the mounting of removable partial dentures on an articulator.

The opinions or assertions contained herein are the private ones of the author and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

Technical Procedure

1. Seat the removable partial denture into the mouth.
2. Make an impression in irreversible hydrocolloid.
3. Remove the impression with the removable partial denture from the mouth. If the removable partial denture remains in the mouth, remove and carefully reseat into the impression (Fig. 1).
4. Remove any impression material that covers the denture border.
5. Pour low-fusing metal (Melotte's metal, melting

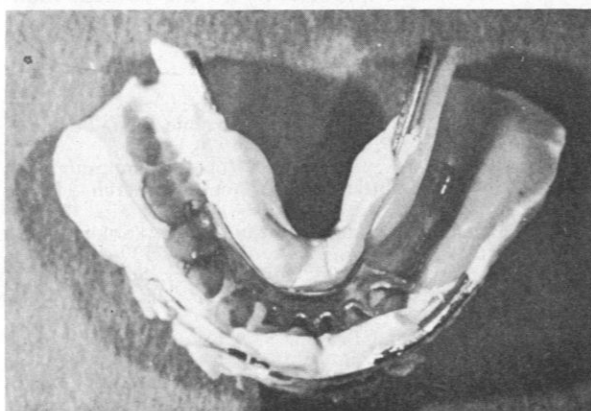


Fig. 1. An irreversible hydrocolloid impression with the removable partial denture seated.

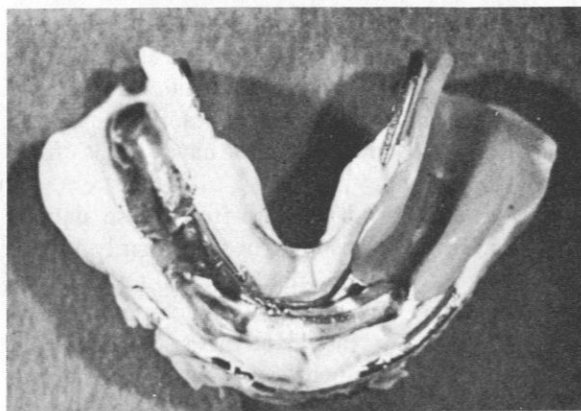


Fig. 2. Low-fusing metal is poured into the natural teeth of the impression.

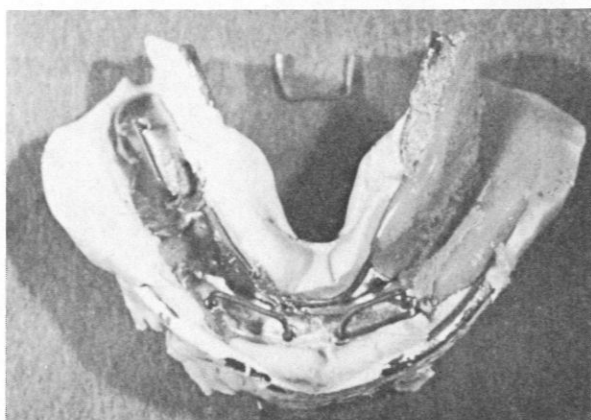


Fig. 3. Several paper clip retentive loops are inserted into the metal and tissue undercuts are blocked out with wet pumice.

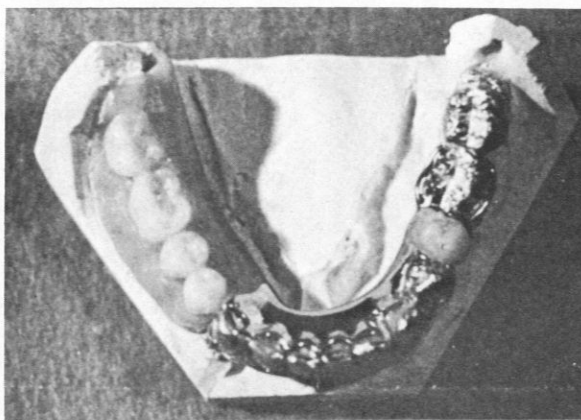


Fig. 4. Metal and plaster cast removed from the impression material.

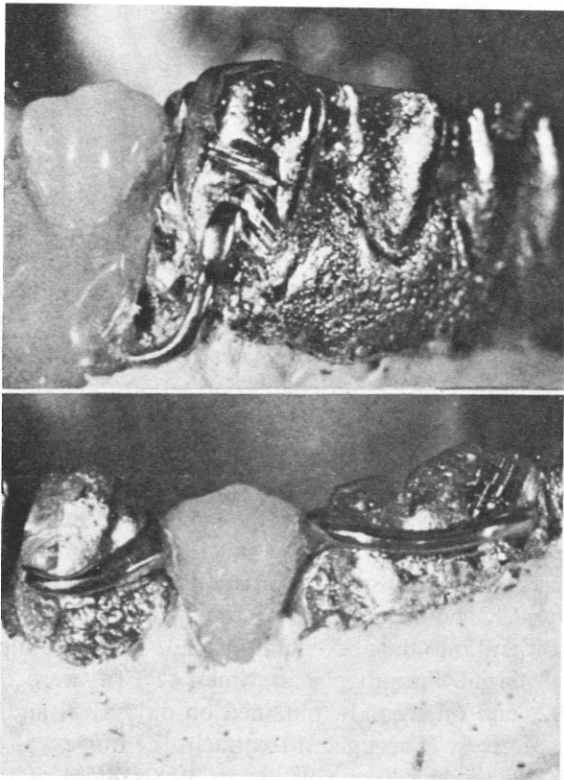


Fig. 5. All retentive undercuts have been removed from the metal teeth.

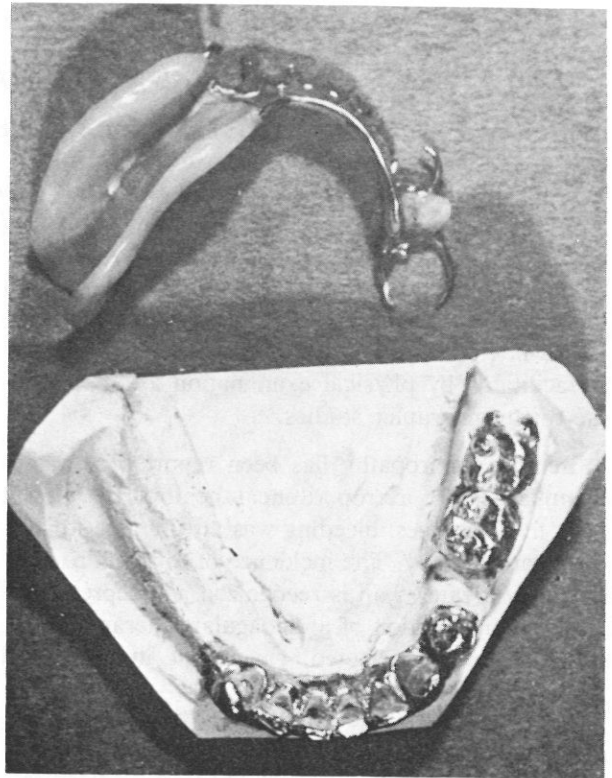


Fig. 6. The partial denture has been removed from the cast.

point 202° F.) into the impression of the natural teeth (Fig. 2).

6. Bend portions of paper clips into a "U" shape.

7. Heat the paper clips to a cherry-red color and seat into the cooled metal.

8. Block out all undercuts on the tissue side of the removable partial denture with asbestos, wet pumice, or clay (Fig. 3).

9. Pour plaster of Paris or artificial stone into the impression covering the metal and the tissue areas of the appliance to complete the cast. Do not vibrate the impression during the pour; carefully tease into the paper clip loops and the saddle areas.

10. Allow plaster to set and remove the cast with the removable partial denture from the impression (Fig. 4).

11. Remove the retentive undercuts from the clasped teeth with a sharp blade (Fig. 5).

12. Remove the prosthesis from the cast and return it to the mouth for the recording of maxillomandibular records.

Advantages of the Technique

1. The partial denture may be removed from the cast for recording the maxillomandibular relationship in any manner and any material that is required (Fig. 6).

2. The natural teeth of the cast do not chip or wear down during the equilibration of the partial denture.

3. The cast can be poured and separated in 10 to 15 minutes if plaster and "slurry water" are used.

Summary

A technique has been presented for mounting a partial denture or partial dentures on an articulator. The method is time saving and accurate. No change in the usual procedures is necessary to make use of this technique. ☞

FEMORAL NEUROPATHY SECONDARY TO RETROPERITONEAL HEMORRHAGE

*LCDR Paul E. Cianci, MC, USN, and Lcdr Robert L. Piscatelli, MC, USN,
JAMA 210(6): 1100-1101, November 10, 1969.*

A 68-year-old woman undergoing anticoagulation therapy had a retroperitoneal hemorrhage with femoral neuropathy. Early diagnosis of this condition is facilitated by physical examination and appropriate roentgenographic studies.

Femoral neuropathy has been reported as a rare complication of retroperitoneal hemorrhage. In at least five instances, bleeding was attributable to anticoagulant therapy. The incidence of this syndrome is probably greater than is recognized and represents a serious complication of anticoagulant therapy which, if ignored or undetected, can result in prolonged femoral nerve dysfunction.

Susens et al recently reported two cases of femoral neuropathy secondary to retroperitoneal hemorrhage while the patient was receiving heparin sodium. An additional case is reported here with roentgenographic findings which may provide a clue to early diagnosis.

Report of a Case

A 68-year-old white woman was admitted to the Medical Service with aching, precordial pain of 90 minutes' duration unrelieved by nitroglycerin. Five months prior to admission she had sustained a myocardial infarction complicated by an episode of shock. There was no history of diabetes mellitus or hypertension. Temperature was 98.0 F (36.7 C); blood pressure, 120/74 mm Hg; and pulse rate, 90 beats per minute. There were fine basilar rales bilaterally. A third heart sound was audible at the apex and a grade 2/6 systolic ejection murmur was present at the left sternal border. Trace pretibial edema

was noted. Findings from neurological examination were within normal limits. Electrocardiogram demonstrated an old inferior myocardial infarction, frequent premature ventricular contractions, and diffuse ST-T interval abnormalities. The hematocrit value on admission was 40%. Lactic acid dehydrogenase isoenzyme showed elevation of fraction I (cardiac).

Intravenous therapy with heparin sodium was begun immediately and on the second hospital day was converted to subcutaneous therapy, 15,000 units every 12 hours, injected in the region of the iliac crest and into the abdominal fat pad. The three highest partial thromboplastin times (PTT) were 79, 102, and 66 seconds, obtained on days 1, 2, and 3, respectively. Throughout treatment the range was 56 to 102 seconds (controls, 35 to 39 seconds). These PTTs were considered to be within the acceptable therapeutic range. During the next 13 days, the patient made satisfactory progress and a gradual increase in her physical activity was allowed.

On the evening of the 13th hospital day, the patient experienced a dull aching in her left thigh. Examination at that time showed no abnormalities. During the next 18 hours, she continued to complain of pain in the left thigh of increasing severity. Pallor, tachycardia, and nausea developed. The blood pressure fell to 80 mm Hg systolic, and results of a tilt test were positive. There was moderate swelling of the left thigh and a positive psoas sign. Sensation over the medial aspect of the left leg was diminished and the patellar reflex on that side was absent. Marked quadriceps weakness was noted. All pulses were full and intact. The hematocrit value was 27 percent; the PTT was 62 seconds (control, 39 seconds); the stool guaiac test gave a negative result. She received three units of whole blood with restoration of the hematocrit value to 37% and blood pressure to 100 mm Hg systolic. The pain gradually diminished during the next ten days. An intravenous urogram performed shortly after stabilization of her

From the Department of Medicine, Naval Hospital, Oakland, Calif. Dr. Cianci is now at the US Naval Hospital, Guam.

The opinions or assertions contained herein are those of the authors and are not to be construed as official or necessarily reflecting the views of the Medical Department of the Navy or the Naval Service at large.

Reprint requests to US Naval Hospital, Guam MI, FPO SF 96630 (LCDR Cianci).

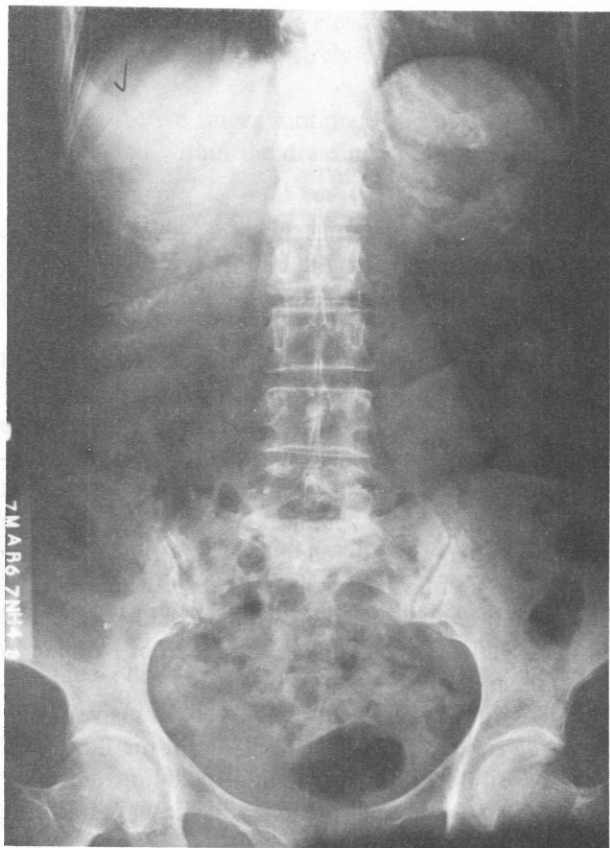


Fig. 1—Scout film of abdomen shows marked disparity in size and configuration of psoas shadow with prominence and bulging on the left.

vital signs revealed striking disparity in the size and configuration of the psoas muscle shadows and medial deviation of the left ureter (Fig. 1, 2).

Comment

Femoral nerve injury secondary to anticoagulant therapy has been infrequently reported. The possible mechanisms of entrapment have been described. These include (1) spontaneous bleeding induced by circulating heparin, (2) retroperitoneal hemorrhage secondary to dissection from site of injection as described by De Bolt and Jordan, and (3) hematoma formation in the rectus abdominus sheath with subsequent dissection into the retroperitoneal space as proposed by Susens et al.

The complaints of pain in the back, flank, hip, or thigh while a patient is receiving anticoagulants should warn the physician to search for evidence of retroperitoneal hemorrhage. In this reported case as in the experience of others, pain often preceded a fall in hematocrit value and evolution of the shock syndrome.



Fig. 2—Intravenous urogram shows medial deviation of left ureter. Prominent left psoas shadow is again identified.

Particular attention should be referred to quadriceps weakness and loss of patellar reflex on the suspected side, this combination of findings almost certainly indicating femoral nerve entrapment.

In addition, as in this case, the roentgenographic findings may provide an objective aid in the confirmation of the suspected diagnosis. A "bulging" psoas shadow on flat plate and deviation of the ureter on intravenous pyelogram confirmed the clinical impression of retroperitoneal hemorrhage.

The route of administration of heparin and concurrent medications appears to be of no mean importance in the development of hematomata. Several authors have suggested that subcutaneous injection of heparin (or any intramuscular injection during peak activity) may induce serious intramuscular or subcutaneous bleeding which can dissect into the retroperitoneal space. In addition, Jick et al have recently noted an increased tendency to excess bleeding in older women.

(The references may be seen in the original article.)

ORTHOPEDIC SURGERY*

1. General

Preservation of life and limb depends on the wound and the surgeon. War surgery is a demanding experience requiring aggressive and meticulous attention to every detail of patient care under adverse conditions.

Orthopedic surgeons should be aware of the principles of débridement and are referred to that section of this document.

The orthopedic study section reiterates confidence in the principles described in the NATO Handbook "Emergency War Surgery" with minor exception.

2. Hand Injuries

A. Hand injuries usually carry a low priority. They are rarely life endangering.

B. Initial surgery is preferably done under tourniquet control, with deflation after each 60-minute period.

(1) Débridement

A minimal amount of the wound border should be excised, but a wide exposure of underlying tissue should be obtained with incisions consistent with principles defined in hand surgery texts but generally in the longitudinal axis. Débridement principles are applicable here as elsewhere. Only those portions of tendons which are damaged should be excised. Nerve damage should be thoroughly evaluated and described in the operative report. Overzealous débridement of nerve should be avoided. Nerve ends need not be tagged. Wide release of involved compartments of the hand and of the involved forearm is necessary. It is often necessary to incise the volar transverse carpal ligament to prevent embarrassment of the median nerve and the flexor tendons. Bone with soft tissue attachments should not be removed. Larger pieces of bone beyond fingernail size chips, should be thoroughly cleansed and replaced.

(2) Kirchner wires may be used in initial surgery to maintain metacarpal spacing, metacarpal length, the normal arches of the palm or unstable joint reductions. The wire ends should be buried if possible.

(3) X-ray studies in two planes should be viewed before and after the initial surgery.

(4) Copious irrigation of the hand wound is indicated prior to dressing.

(5) The tourniquet should be released and bleeding controlled prior to dressing the wound.

(6) The hand wound is not an exception to the open wound treatment and delayed closure techniques. Hand wounds are therefore left open and dressed as are other wounds with fine mesh gauze in a single layer and fluffed gauze, carefully avoiding packing that might occlude drainage. Tendons and nerves left exposed in the wound should be covered with thin strips of wiped vaseline gauze or Adaptic to keep them moist.

(7) Plaster splinting and/or massive bulky dressing should be applied to maintain the functional hand position. All finger joints including the M-P joint should be in mild flexion, and the thumb should be abducted and facing the pulp of the long finger. The wrist should be in mild extension.

C. Antibiotics

Prophylactic antibiotics are recommended in treating war wounds. Penicillin in large doses is recommended, and broad spectrum antibiotics may be used at the discretion of the surgeon. Wound cultures and recultures should influence the subsequent antibiotic usage. (Refer to antibiotic section)

D. Wound Closure

(1) Primary closure of hand wounds is not indicated.

(2) Delayed primary closure should be done at 3-7 days if the wounds are clean on inspection and can be closed without tension.

(3) Redébridement of dirty or nonviable tissue will defer closure.

(4) After 10 days the skin edges will become fixed. Undermining should be avoided. If the wound is clean, split thickness skin grafts should be done without hesitation. Mesh grafts are acceptable.

(5) There is no place for pedicles, rotation flaps, or skin transposition in this early stage of treatment. Failures create insurmountable handicaps to future reconstruction.

E. Elevation of the wounded hand above chest level should be continuous until there is no evidence

* Taken from proceedings of CINCPAC Fourth Conference on War Surgery, February 1970.

of edema. Provisions for elevation during evacuation should be made. Do not rely on simple pillow elevation.

F. Active finger motion as permitted should be encouraged within the dressing, with pain as the limiting guideline.

G. Observation of fingertip circulation should be frequent. Circular dressings should be released at any sign of circulatory embarrassment.

H. Special Considerations

(1) Nerve repair at initial surgery is not indicated in combat wounds, and should be deferred until well after a clean, closed and uncomplicated wound state has been obtained. Tagging of lacerated nerve endings is not indicated.

(2) Exposed tendons lying in a good tissue bed need not be debrided initially. Skin grafts may take over exposed tendons if they have remained viable, but delayed primary closures or skin grafts should not be done over darkened, degenerated, non-viable tendons. These must be redebrided.

(3) Vascular repairs of a single vessel at the wrist or distal to the wrist should not be attempted. Exposed vessels are the only indication for tissue shifts, not to include the skin.

(4) All tissue should be preserved at the most distal level of viability. It is often possible for instance, that a finger damaged beyond salvage could contribute viable skin useful in delayed coverage in the palm or dorsum of the hand.

3. Foot Injuries

A. The foot is particularly prone to serious injury from mine explosions as well as the usual gunshot or fragment injuries.

B. Initial surgery consists of thorough débridement, which will usually require plantar incisions that are avoided in other circumstances, as well as dorsal, medial, or lateral exposures, as required by the wound. Again incisions in the long axis are desirable except under the metatarsal heads, where a transverse incision distal to the ball of the foot will provide the required exposure. The heel splitting incision can be used to debride the comminuted and contaminated calcaneus.

(1) Unstable fractures or dislocations may be transfixed with Kirchner wires.

(2) Attached bone fragments should be left in place. Larger detached fragments should be cleansed thoroughly and replaced.

(3) Dressings are applied as in the hand with

fine mesh gauze and gauze fluffs avoiding tamponade of the wound.

C. X-ray studies should be made in two planes before and after the procedure.

D. Circular casts should be bivalved and used for immobilization. Plaster splints are not normally adequate. Neutral position of the foot and ankle is required except when the Achilles tendon mechanism has been disrupted, in which case, moderate, not severe, plantar flexion is permitted.

E. Elevation should be continuous.

F. Active toe function can be permitted within the limits defined by pain.

G. Frequent observation of circulation in the toes should be made and circular compression released at any sign of embarrassed circulation.

H. Wound Closure

(1) Primary closure is not indicated.

(2) Delayed primary closure can be done at 5-7 days if the wounds are clean on inspection. Suturing should not be done under tension, and dead spaces must not be created. This is particularly apropos to plantar wounds.

(3) Redébridement of dirty and/or nonviable tissue will defer closure.

(4) After 10 days the skin edges will become fixed. Undermining should be avoided. Split thickness skin grafts should be done without hesitation if the wound is clean.

(5) There is no place at this early stage of treatment for pedicles, rotations or transposition of skin to provide coverage.

I. Special Considerations

(1) Nerves should not be repaired. Their repair should be left for later consideration in the presence of a clean, closed and uncomplicated wound. Tagging of nerves is not indicated.

(2) Tendons should not be repaired in this stage of treatment. Management of exposed tendons is described under "Hand Injuries".

(3) Vascular repairs distal to the calf are not indicated. Exposed vascular structures should be covered by soft tissue shifts, excluding skin.

(4) Rather devastating closed injuries of the foot will also be encountered from crush or from mines exploding beneath vehicles. Massive swelling ensues and ischemic contractures are a potential complication unless decompressing fascial incisions in the foot are done.

4. Amputations

A. All attempts should be made to save a viable limb.

B. Massive injuries, particularly with an unsalvageable vascular injury, are better primarily amputated.

C. Initial amputations or amputations done for misjudged viability, failed vascular repairs, or massive distal infection, should be done at the lowest level of good skin and underlying tissue. Open circular amputation is the most acceptable amputation. The skin is incised circularly and allowed to retract, the muscle is severed at the level of the skin retraction, and the bone is severed at the level of the muscle retraction. There are, however, a significant number of cases where there is good viable skin and underlying soft tissue distal to the sensible level of bone amputation in which it is advisable to save the viable skin and soft tissue in flaps, for use in subsequent closure of the stump. Plastic surgery principles of the viability of flaps should be respected and over-lengthy flaps avoided. Profound surgical judgment must be exercised in these decisions. Bleeding should be controlled prior to dressing.

D. Dressing of the Stump

(1) In the case of an open circular amputation, fine mesh gauze and gauze fluffs are applied as in other wounds. Stockinette is then applied to the skin above the open stump with some adherent to prevent slipping. The stump is wrapped with decreasing compression proximally and traction applied in the amount of 5-6 pounds over a pulley or simply over the foot of the bed. Constrictive wrapping at or above joints must be avoided. This traction should be maintained continuously with reapplication for dressing changes or for slippage.

(2) The amputation with preserved flaps requires individualized dressing consideration. The flaps should be held in their intended position by the dressing, although the major area of the amputation should be left widely open. No element of a flap should be loosely suspended within the dressing. No tacking sutures should be used. If at all possible traction on the remaining skin elements other than the flap should be supplied.

(3) There is no indication for definitive bone preparation in the initial surgery.

E. Stump Wound Closure

(1) There is no indication for delayed primary closure in open circular amputations. Continued traction will often result in the skin eventually closing over the end of the stump. If it does not, small split thickness skin grafts can be used. A definitive revision will later be necessary but it can be done under conditions permitting immediate fitting

techniques or more rapid prosthetic application. Delayed primary closure too often results in a chronically inflamed edematous, indurated, and sometimes draining stump that is chronically unreceptive to prosthetic application.

(2) With amputations in which flaps were preserved, placement of the flaps should be accomplished as a delayed primary technique. Full closure of the stump should not be the goal, and rotation or shifting of other skin is contraindicated. Successful cases might be reported as a tribute to surgical skill but unsuccessful cases are catastrophic, resulting in higher level amputation. It is questionable that these maneuvers really speed up the prosthetic application. It should be emphasized that the main basis for flap preservation is to salvage length that might be sacrificed in a rigid open circular policy. Ill advised early closure of any amputation stump threatens length, when it fails, and usually results in a chronically unreceptive stump for prosthetic application.

F. Transportation

(1) Traction must be continuous throughout the evacuation process.

(2) A self-contained traction device with a cast incorporating a wire ladder splint, with carefully adjusted elastic material, stockinette to ladder splint, is sufficient. The tension is critical here and overpull must be avoided.

(3) It is hoped that a self-contained, constant friction traction unit will soon be available in quantities sufficient for transportation purposes. These can be attached by Velcro to most anything available, still maintaining the prescribed traction.

G. Antibiotics

See section on "Antibiotics and Sepsis" in July issue.

5. Pelvic Fractures

A. Penetrating injuries involving the hip area, pelvis and lower abdomen are a combined general surgical, urological and orthopedic problem. When the hip joint is involved even without an external wound about the hip, a formal arthrotomy is required as discussed in paragraph 6.

B. Loose bony fragments of the pelvis should be removed. Ureteral injuries should be internally splinted by catheter drainage of the side and a nephrostomy done for diversion. Bowel injuries in this area are discussed in the General Surgical Section. A diverting colostomy is indicated. Coccygectomy may be required for drainage of wounds in the rectal area. This general class of injuries is among the most threatening that we orthopedic surgeons encounter.

Without careful attention to the requirements, severe sepsis and death are potential.

C. Closed pelvic injuries are treated as they might be in civilian life with attention to GU involvement, ileus, and shock from hidden hemorrhage.

6. Wounds Involving Joints

A. All penetrating or perforating wounds of joints should, after careful general evaluation and resuscitation, be examined by X-ray studies in two planes as a baseline, followed by early formal arthrotomy under tourniquet where practical. This should include a thorough débridement of the joint with removal of foreign material, bone chips, blood and other devitalized tissue. This should be followed with copious irrigation. Synovial or capsular structure should then be loosely closed and the skin wound left open for delayed closure. No drains or irrigating catheters should be used at this stage. *All* penetrating hip wounds should include a posterior arthrotomy and drainage. Routine war wound dressings as previously described should be applied, and the joint immobilized by a bivalved circular cast. Prophylactic antibiotics should be routine. At 5–7 days if the wound appears clean without evidence of intra-articular inflammation, delayed primary closure can be performed.

B. Cases will be seen wherein capsule and synovium are destroyed to the extent that closure is not possible and after appropriate débridement, the wound must be dressed in the normal manner with the joint open. Flaps and skin transpositions should not be done at this time. The salvageability of such a joint in terms of motion must be suspect, but surprisingly, synovium has rapid recuperative powers and will often cover the defect, to be in turn covered with healthy granulations receptive to split thickness skin grafts, leading to a functioning joint. Complete original débridement is probably the key in the successful outcome in such cases.

C. Sepsis in a joint can result in rapid destruction of the joint. Early recognition is mandatory. Persistent swelling, marked pain, local warmth, temperature elevation and intense pain on any minor motion indicate the need for a repeat formal arthrotomy, with a thorough joint toilet; at this time tubes for irrigation and drainage by suction should be incorporated if possible. Penicillin irrigations are most commonly of benefit but antibiotic choices are dependent on sensitivity studies and the advisability of using the specific antibiotic for intra-articular instilla-

tion must rest with the judgment of the surgeon. Such irrigations with drainage may be carried on for 5–7 days before the physical presence of the catheters becomes objectionable. Should subsequent inflammation recur, the joint may still be salvaged by repeating this entire process.

7. Fractures

A. The initial management of open fractures in combat includes thorough débridement, removal of all foreign material and devitalized tissue, and opening of damaged fascial planes. The surgeon is referred to the section "Debridement" reprinted in the June issue.

B. Fracture Management

(1) Biplane X-rays are required initially.

(2) There is no place for internal fixation of open war wound fractures.

(3) Small fingernail size detached fragments should be discarded, but larger fragments, particularly those contributing to length and circumferential integrity, should be retained. Loose fragments should be thoroughly cleansed and repositioned. The infection that inevitably ensues in an open long bone defect is more horrendous than that which may potentially occur as a result of retained bone fragments, not to mention the long term problems encountered in trying to fill a bone defect.

(4) Primary closure over fracture is never indicated. Delayed primary closure (DPC) under tension over fracture should not be done. It would be better to aim for closure by split thickness skin graft. When delayed primary closure is done over a fracture it should be watched carefully for signs of inflammation. Any hint of infection should be countered by immediate opening of the wound. It is this sort of enclosed infection that results in the chronic osteomyelitis so troublesome to everyone. Wounds left open over fractures may drain or weep for a long time but they seldom cause chronic problems.

C. There is absolutely no place for flaps or tissue shifts of any kind including relaxing incisions in the early treatment of wounds over fractures. The goal with these wounds should be closure by DPC or coverage with split thickness grafts. Failed flaps or lost relaxed segments may forever handicap future reconstructive efforts. Unsatisfactory skin (grafted or scarred areas) can be replaced later with much less risk.

D. Dressings are applied as previously described.

E. Casting

(1) Plaster slab splinting is inadequate except in controlled hospital circumstances for wound dressing purposes and even then it is rarely useful.

(2) A circular plaster cast should be applied and bivalved. Monovalved casts are indicated only in the controlled hospital circumstance for relief of swelling. For the purpose of early management of these injuries through initial treatment and evacuation, there is no place for a monoalvalved cast. All evacuees from the combat theater should have bivalved casts; from the intermediate facilities, individualization is indicated. A case retained (for whatever reason) to a point where his condition including his fracture is stable, can be transported with an intact cast. Any hint of instability with particular reference to swelling and circulation requires bivalving of the cast. A history of vascular injury requires a bivalved cast and windowing over the area of vascular repair. The decision at this level should be the responsibility of the dispatching physician. No patient in a cast should be sent for evacuation without adequate observation post casting to certify the quality of the cast.

(3) Plaster casts should be marked with identifying information for the use of personnel receiving and transporting the patients.

F. Special Considerations

(1) Vascular injuries do not require internal stabilization of underlying fractures. Resultant infection would threaten the integrity of the vascular repair more than anything else. Careful casting should suffice. Occasionally, rongeur of sharp pointed spicules threatening the vascular repair is necessary. Bivalved casts with windows in the area of the vascular repair should be used throughout the process of evacuation.

(2) Brachial artery injuries with fracture should be transported in a Valpeau type dressing strapped across the chest. Coincident thoracic injuries should be resolved before evacuation.

(3) Spica Casts should be constructed to avoid width beyond that of the standard litter for ease of evacuation.

(4) Ischemia from swelling in muscle compartments distal to arterial repair can be relieved only by fasciotomy. In the popliteal or lower femoral area a plea is made for immediate fasciotomy of all compartments below the knee if conditions permit. In this particular circumstance, waiting for symptoms to develop prior to fasciotomy results in function loss

that might have been saved by earlier fasciotomy. The method of calf fasciotomy, two incisions versus fibular resection, is immaterial as long as all three compartments are opened and the full depths of the compartments are released.

(5) Tendon Injuries

(a) Open injuries of major weight bearing tendons such as the Achilles or quadriceps should be treated as other wounds without repair of the tendon. The Achilles tendon might heal satisfactorily with fixed plantar flexion of the ankle joint, but in general, these are problems of late reconstruction.

(b) No primary tendon repair is indicated in the combat zone no matter what the source or type of injury. The wound should be managed by staged techniques already described with the goal of obtaining a nonreactive, closed wound state. Débridement should include all destroyed and contaminated tissue; temporizing because of aversion to removing important tissues will result in failure of the débridement.

(c) Proper position in splinting and casting is extremely important. The reader is referred to the sections on hand and foot injuries.

(6) Nerve Injuries

(a) It is well documented that nerve injuries incurred in combat are best treated by delayed repair. In a wound that has been staged through DPC without any hint of complication throughout the postoperative course, the nerve repair might be instituted as early as three weeks after initial injury. In most cases the time involved will be longer than that, but in any case nerve repair should not be attempted until a clean closed wound has been attained and all tissue reaction has resolved. A non-reactive, soft, pliable bed for the nerve repair is desirable.

(b) A full description of the nerve injury as observed by the original physician at débridement is of immense value to those treating the case subsequently.

(c) Tagging of peripheral nerve injuries except in the case of the Facial nerve offers no facility in the subsequent repair and should not be done. Tagging introduces foreign material in the wound depths that may well increase the infection potential.

(d) Causalgia can be aborted by vigorous early conservative measures consisting of early function, physical therapy, electrical stimulation and anesthetic blocks. Persistent causalgia may require sympathectomy but this should be a later consideration in the management of the patient. ☸



MSC SELECTIONS FOR NSHCA

Selections for assignment to full-time training at the Naval School of Health Care Administration (NSHCA) will be made during January 1971. The deadline for submission of requests to BuMed is 1 January 1971. All interested Medical Service Corps officers in the Health Care Administration Section are encouraged to submit a request for consideration. Selections will be based on: past performance, both academically and in regular duty assignments as reflected in fitness reports; needs of the service; and availability of the officer concerned. As in the past, the number of selections will be limited by the availability of training billets. However, all eligible officers are encouraged to consider this important phase of their career development.

The attention of Medical Service Corps officers is also invited to educational opportunity available in the area of Financial Management. It is anticipated that additional billets will be available at the Navy Post Graduate School in Monterey for assignment of officers to full-time training in this area. Applications are desired from HCA officers who already possess a baccalaureate or who will earn the degree of bachelor before or during June 1971.

BUMEDINST 1520.12E outlines the Medical Service Corps full-time training program. All MSC officers are encouraged to peruse this instruction and consider their career development accordingly. ☸

NBC MEDICAL TRAINING

Nuclear-biological-chemical warfare (NBC) medical training is a responsibility of the individual command medical department. Recognizing that planning, pro-

ducing and conducting such a program is highly technical, complex and beyond the capacity of most commands on an individual basis, the Surgeon General has had the Naval Medical School produce a training package to facilitate such training. Preliminary reports from field activities and commands have indicated that use of this NBC medical training package has met with unqualified success in helping commands to meet this training responsibility. All commands are strongly encouraged to obtain this package and use it in their medical personnel training programs. Details of contents, scheduling and distribution are set forth in BUMED Instruction 3440.6 of 30 December 1969. ☸

USAF SOCIETY OF CLINICAL SURGEONS' SYMPOSIUM

The Department of the Air Force Medical Service will conduct subject symposium at the Convention Center, South Alamo & Market St., San Antonio, Texas 78205, on 24-26 May 1971.

Since this symposium is of interest to many of our medical counterparts, invitations are hereby extended for their attendance. It should be understood that all travel and living costs must be borne by your agency or by the attendee personally.

COL Robert G. Dawson, USAF, MC, Wilford Hall USAF Medical Center/WHHS, Lackland AFB, Texas 78236, has been designated the program chairman and all communications regarding the symposium should be addressed to him. The name, title, and address of the individuals who will attend should be forwarded to the program chairman, with a copy of this information being provided USAFMPC/SGPSE, Randolph AFB, Texas 78148. ☸

RADM RAFFETTO HONORED

RADM Edward C. Raffetto, DC, USN was named an honorary member of the American Society of Oral Surgeons at the 52nd annual meeting held in Oct. 1970 at Miami Beach, Fla.

Admiral Raffetto, was honored for his insistence upon qualified oral surgeons in the Naval Dental Corps and his advocacy and implementation of three-year oral surgery residencies in eight navy hospitals and at the Naval School in Bethesda.

RADM Raffetto, a graduate of the University of Pennsylvania School of Dental Medicine, started his career with an internship at the United States Public Health Service Hospital in Boston. Since then, he has served in the U.S. Navy for more than 34 years.

One of his greatest accomplishments concerning Oral Surgery as a naval officer was the extensive implementation of a plan allowing young naval dental officers to specialize in oral surgery much earlier in their careers than was previously possible. Other accomplishments include the support and establishment of oral surgery programs in Vietnam that led to 92 per cent of the patients being treated in Vietnam by naval oral surgeons.

RADM Raffetto's military career has taken him literally around the world as a dentist. He served as Chief of Dental Service on the USS Relief, saw action in the Gilbert Marshall Island campaigns during World War II, and subsequently served as Chief of Dental Service aboard the USS Repose. In 1960 he was named Head of the Personnel Branch of the Dental Division, Bureau of Medicine and Surgery (Dentistry) and Chief of the Dental Division. In conjunction with his current duties as an Assistant Chief of BuMed, RADM Raffetto is responsible for almost 2,000 dental officers in the U.S. Navy.—Press Release, American Society of Oral Surgeons. 🇺🇸

NAVAL MEDICAL SCHOOL NURSING COURSE

Eleven Nurse Corps Officers recently attended the Neurology-Psychiatric Conference held at the Naval Medical School, Bethesda, Maryland.

Unusual aspects of seizure disorders, psychodrama, therapeutic intervention in mental disorders and rehabilitation of the psychiatric patient were discussed by qualified, professional speakers.

An in depth view of alcoholism as a major problem was presented along with suggestions for medical personnel to help those in the military community suffering from this disorder. Branches of Alcoholics Anonymous have been established at various Naval

installations. The results have been gratifying to those involved. The establishment of more units is being encouraged to aid service personnel and their families. 🇺🇸

EXPLORER POST CHARTERED AT NNMCM

Prospective members of the newly chartered Medical-Dental Explorer Post 437 are pictured intently filling out their applications at the National Naval Medical Center in Bethesda, Maryland. The Post is the first of its kind in Montgomery County. Open to young men and women between the ages of 15 and 18 years (up to 21 if still in school), the Post plans to delve into specific medical, dental and paramedical areas through lectures by guest speakers, field trips, and research.



Young adults from the Washington metropolitan area are invited to attend the bimonthly meetings at the Medical Center. RADM F. P. Ballenger, MC, USN, Commanding Officer of the Medical Center, said, "I hope young people in the area take advantage of this excellent opportunity to pursue the many fascinating and rewarding careers in the fields of medicine and dentistry."

Further information on the Explorer Post can be obtained by calling the Post Committee Chairman, CDR J. A. Spahn, MSC, USN, at 295-0142; or the Post Advisor, ENS Mike Mitchell, MSC, USN, at 295-1050.—PAO, NNMCM, Bethesda, Md. 🇺🇸

INFLUENZA VACCINE—WHY?

Influenza vaccine has a specific function—viz. to promote antibodies against *specific* viral agents. The nonspecific disease with malaise, fever, headache and often gastrointestinal symptoms is unfortunately commonly called “flu” by laymen and by physicians. The influenza vaccine is not designed to prevent this type of illness. Influenza vaccine protects against infection by influenza virus which is a serious infection and causes a significant incidence of deaths. The world-wide pandemic of influenza just after WWI was responsible for millions of deaths. The first world-wide epidemic of “Asian” flu (1957), caused hundreds of thousands of deaths. Influenza vaccine is designed to prevent this type of disease which can cripple a ship or unit within a 24–72 hour period.

Influenza vaccine has no effect on respiratory disease morbidity unless personnel are exposed to the influenza virus. Since the military population must be in a constant state of readiness and since influenza exists in some part of the world every year, it is prudent to continue this health protection program.

The “reaction” from the injection is not due to infection with virus, but is caused by constituents of the vaccine peculiar to its manufacture. The reports of ineffectiveness in lay, pseudoscientific and medical literature can nearly always be attributed to one of the following:

(1) inadequate proof of diagnosis; (2) the strain of virus causing infection differed from the strain utilized in preparing the vaccine so protection could not be expected; (3) vaccine of inadequate potency; (4) inadequate dose of vaccine; (5) improper timing of the vaccine administration; or (6) rarely a vaccinated individual has some condition which interferes with production of antibodies and immunity.

The influenza vaccine prepared for use by the military has 1.6–2 times the antigenic potency of that prepared for the civilian market.

INFLUENZA VACCINE HURTS, BUT DOES PROTECT AGAINST SPECIFIC INFECTION, AND THUS SAVES LIVES.—Code 72, BuMed. ☸

CORRESPONDENCE COURSE IN PERIODONTICS

The Naval Dental School offers a newly revised correspondence course for dental officers, *Periodontics*, NavPers 10758–A, which is based on the fourth edition of *Periodontal Therapy* by Henry M. Goldman and D. Walter Cohen.

The new course, which has eight assignments, is

intended to improve the capability of the general practitioner in the prevention, recognition and treatment of periodontal disease. In the first three assignments are discussed the tissues of the periodontium, the clinical indications and etiology of periodontal disease, and preventive dentistry. Assignments 4 through 8 cover the examination, diagnosis, and treatment of periodontal disease and include discussions on motivation of the patient and the rationale for periodontal therapy.

Officers who received credit for the previous course, NavPers 10758, may enroll in the new course for additional credit. Sixteen retirement points will be given for the course to be credited as follows: 12 points upon satisfactory completion of assignments 1 through 6; 4 points upon satisfactory completion of assignments 7 and 8.

Application should be made to the Commanding Officer (Code E–43), Naval Dental School, NDMC, Bethesda, Md. 20014. ☸

CASUALTY TREATMENT TRAINING COURSE FOR DENTAL OFFICERS

Twelve dental officers of the U.S. Navy completed the Casualty Treatment Training Course conducted 5–9 October 1970 at the Naval Dental Clinic, Norfolk, Va. The course, under the supervision of BuMed, is conducted throughout the Navy to develop in dental officers such skills in emergency casualty treatment as to make full use of their professional knowledge, enabling them to amplify the medical effort in time of major emergency. This was the third course to be conducted in Norfolk this year. Similar courses are held at Bethesda, Md.; Great Lakes, Ill.; and San Diego, Calif.

The Casualty Treatment Training Course was under the direction of CAPT C. F. Rau, DC, USN, and CDR R. G. Shaffer, DC, USN. RADM M. E. Simpson, DC USN, is Commanding Officer of the Naval Dental Clinic, Norfolk. CAPT J. F. Link, DC, USN, is Executive Officer.—Code 611, BuMed. ☸

STAFF VETERINARIAN CERTIFIED

CAPT Jerry Z. Kendrick, USAF, Staff Veterinarian, Aerospace Medical Research Department, Naval Air Development Center, Warminster, Pa., has been certified as a diplomate by the American College of Laboratory Animal Medicine. A specialty of Veterinary Medicine, Laboratory Animal Medicine deals with the treatment and prevention of disease in animals used as subjects in biomedical research. ☸

The President of the United States takes pride in presenting the BRONZE STAR MEDAL posthumously to

RICHARD OGDEN WOLFE 771 73 87
HOSPITAL CORPSMAN FIRST CLASS (DV) (PJ)
UNITED STATES NAVY

for service as set forth in the following

CITATION:

For heroism while serving with friendly foreign forces engaged in armed conflict against Viet Cong insurgents and North Vietnamese Communists in the Republic of Vietnam from 5 September to 30 November 1969. Petty Officer Wolfe was assigned as Platoon Corpsman, BRAVO Squad Leading Petty Officer and Platoon Intelligence Petty Officer for SEAL Team ONE, Detachment GOLF, MIKE Platoon. He took part in 28 small unit combat SEAL missions coming under direct hostile fire on many occasions. On 15 November 1969, he was a member of a SEAL squad which had set up a listening post to interdict Viet Cong supplies. During the brief fire fight, he plunged into a swift current, dragged a sampan to shore and immediately began administering first aid to two wounded Viet Cong. On 29 November 1969, he was the corpsman for a SEAL squad operating in a Viet Cong controlled area to capture the District Finance and Economy Chief and his deputy. Petty Officer Wolfe again displayed complete disregard for his own personal safety by exposing himself to enemy fire while giving first aid to a wounded Viet Cong. On 30 November 1969, he took part in a dangerous SEAL mission to interdict and capture one Province Finance and Economy chief, three District Finance and Economy chiefs and three Viet Cong guerrillas who were performing security duty. As the helicopter attempted to land it began receiving small arms fire. Petty Officer Wolfe left the craft. The helicopter went out of control, crashed and killed Petty Officer Wolfe. His fearless devotion to duty in the face of grave personal risk, extreme courage under fire and great compassion for the wounded were in keeping with the highest traditions of the United States Naval Service.


The Combat Distinguishing Device is authorized. ㊦

The Secretary of the Navy takes pleasure in presenting the MERITORIOUS
UNIT COMMENDATION to

**FIRST MEDICAL BATTALION
FIRST MARINE DIVISION (REINFORCED)
FLEET MARINE FORCE**

for service as set forth in the following

CITATION:

For meritorious service in support of First Marine Division operations against insurgent communist (Viet Cong) and North Vietnamese Army forces in the I Corps Tactical Zone, Republic of Vietnam from 3 April 1968 to 15 May 1969. Providing exceptional and selfless service in pursuit of its mission to save lives and reduce suffering, the First Medical Battalion admitted 8,603 patients, 3,328 of which were seriously injured combat casualties; performed over 11,915 surgical operations; and administered 4,570 pints of whole blood during emergency lifesaving surgical and intensive care procedures. The First Medical Battalion rendered outstanding medical service during 22 major combat operations, including HOUSTON IV, MAMELUKE THRUST, ALLEN BROOK, DODGE CITY, MAUI PEAK, MEADE RIVER, TAYLOR COMMON and OKLAHOMA HILLS. When the division perimeter was breached by enemy forces bringing the area under enemy fire and generating a mass casualty situation, personnel of the First Medical Battalion, while under direct enemy fire, took their vehicles through fire fights and exploding enemy demolition charges to render aid and gather wounded from the battle area. On 28 April 1969 a fire ignited the ordnance at Ammunition Supply Point #1. In spite of the continuous threat of personal injury from blasts and falling fragmentation, the personnel of First Medical Battalion moved into the immediate vicinity of the explosions amid the rain of shrapnel and fiery debris on repeated occasions to evacuate civilian and military personnel and to keep the resulting casualties at a low number during the disaster. The First Medical Battalion vigorously pursued a civic action program designed to aid the stricken Vietnamese populace by providing medical service and humanitarian care to over 35,000 Vietnamese civilians in the I Corps Area. The outstanding dedication to duty, resourcefulness, and inspiring professional skill demonstrated by the First Medical Battalion were in keeping with the highest traditions of the Marine Corps and the United States Naval Service. 

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CORPSMEN OBTAIN COLLEGE CREDITS FOR DEGREE

A new program designed to give Hospital Corpsmen college credits leading to a degree is now in effect.

The Pharmacy Technician School at Naval Hospital Corps School, San Diego, and Grossmont College, San Diego, have jointly sponsored the program to enable pharmacy technicians in the Navy to earn credits leading to an Associate Degree.

Twenty-one members of Pharmacy Technicians

Class 21 have enrolled in the program. Up to 30 college semester credits will be given for the Navy School. The students are also enrolled in classes on the college campus. The students may select a class from a variety of humanity or science courses.

If the students plan to continue their education after their tour in the service, they can return to Grossmont College and complete the necessary requirements for the Associate Degree.

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d. improvements in patient care shall result from team effort and planning through drills and other appropriate exercises.

There are times when the course of action taken by the Council yields more visible results. The Council was responsible for the publication of a six-page "Helpful Hints Letter for Newcomers", which is sent to new nurses prior to their reporting to Naval Hospital, Philadelphia. This letter grew out of a concern for those who must relocate themselves in a strange, new city. Having gone through this process not too long ago themselves, and appreciating the annoying frustrations and inconvenience which may be encountered, the Council members were enthusiastic about pooling their varied experiences so that others might profit from them. Included in this letter are useful items of information including where to stay upon arrival, suggestions for how and where to look for housing and furnishings, anticipated living expenses, sample military lease clauses, and things to accomplish before actually reporting to the Hospital.

Through the "sponsor-system" this letter, and a personal letter of welcome, are sent to every junior-ranking Nurse Corps officer by a member of the Council. Upon arrival in the Philadelphia area, the new nurse is welcomed and encouraged to contact her sponsor for help with immediate problems. Many nurses have taken up temporary residence—ranging from a few days to a few months—in their sponsor's apartment, until they could locate and move into their own accommodations.

The JNCOC Council is a voluntary aggregation of young adults who appreciate that apathy and unconstructive griping not only fail to improve the conventional system, but further frustrate any hopes for useful communication and compromise. The refreshing aspect of the organization is that although members do not formulate hospital policies, their presence is felt and their voice is heard. The team spirit generated by JNCOC is healthy and vital. It is translated into managerial skills and cultivates professional knowledge.

United States Navy Medicine

CORRESPONDENCE AND CONTRIBUTIONS from the field are welcomed and will be published as space permits, subject to editing and possible abridgment. All material should be submitted to the Editor, U.S. Navy Medicine, Code 38, Bureau of Medicine and Surgery, Washington, D.C. 20390.

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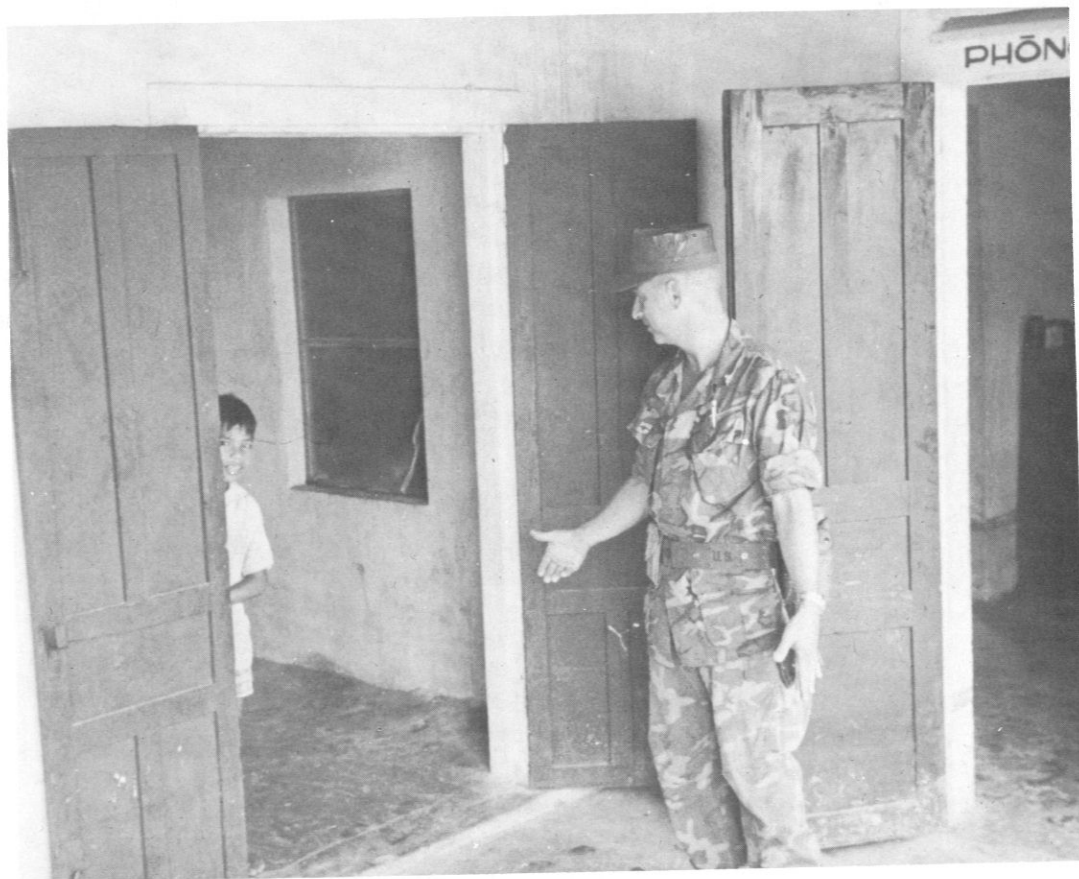
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